

APPENDICES:
THE MAYFLIES
OF SASKATCHEWAN

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APPENDIX I. COLLECTORS NAMES

Table A1. Names and initials of collectors.

Initials	Name
JMW	Webb, J.M.
RD	Demary, R.
Bpol	Pollock, B.
BJ	Jarvis, B.
DML	Lehmkuhl, D.M.
VK	Keeler, V.
BV	Vuang, B.
RH	Holmberg, R.
CM	Myrfield, C.
DL	Larson, D.
BS	Sarauer, B.
DWP	Parker, D.W.
Bsam	Samleteki, B.
SN	Neis, S.
BP	Paquin, B.
WS	Sawchyn, W.
DE	Dribrenky, E.
C	Cushing
FMA	Atton, F.M.
ERW	Whiting, E.R.
BSL	Lehmkuhl, B.S.
MSP	Pollock, M.
HF	Fredeen, H.
Jhal	Halpin, J.
Dkan	Kanasiuk, D.
Snay	Naylor, S.
F	Faglerued
NC	No Collector Indicated
LD	Dosdall, L.
DHS	Smith, D.H.
PGM	Mason, P.G.
JC	Ciberowski, J.

APPENDIX II. SAMPLE LOCATIONS

Table B1. Latitude and longitude coordinates for sample locations.

Location	Latitude	Longitude
South Saskatchewan River at Lemsford Ferry	56.1001	-103.7739
Ace Creek at Ace Lake Dam, at outflow, 9.2km E of Uranium City	59.55	-108.45
Ace Creek at Ace Lake Road, 9.1 km ESE of Uranium City	59.512	-108.485
Ace Creek upstream from Ace Lake, 9.9 km E of Uranium City	59.547	-108.476
Amber Lake at km 135 of Hwy 955	57.446	-109.258
Archibald River, near S shore of Lake Athabasca	59.133	-108.417
Arsenault River at Hwy 903	55.1127	-108.3779
Bainbridge River at Hwy 9	53.572	-102.122
Battle Creek at Hwy 615	49.412	-109.744
Battle Creek at Ranger Station, Cypress Hills Prov. Park, W Block	49.600	-109.923
Battle Creek near Alberta border	49.617	-109.983
Battle River below old dam, Battleford	52.72	-108.31
Battle River at Hwy 21	52.841	-109.343
Battle River S of Delmas	52.8	-108.567
Battle River, bridge S of Lashburn	53.0425	-109.6008
Bear Creek at Hwy 155	55.617	-108.2
Beaver Creek Conservation Area, 15km S of Saskatoon	51.983	-106.7
Beaver River at Hwy 4	54.295	-108.601
Benson Creek at Battle Creek Road, West Block Cypress Hills Prov. Park	49.620	-109.956
Berth Creek, 20m upstream from Melville Lake, 4.2 km E of Uranium City	59.567	-108.533
Bisset Creek at Hwy 106	53.5	-104.783
Bone Creek at Hwy 633	49.811	-108.783
Bow River at Hwy 165	54.793	-105.283
Bow River, 13 miles N of Molanosa	54.6816	-105.4617
Bradwell Reservoir	51.917	-106.183
Brightsand Lake at Nature Trail	53.646	-108.867
Broad Creek at Hwy 904	54.84	-108.408
Candle Lake	53.733	-105.25
Canoe River at Hwy 155	55.3730	-107.9202
Carrot River at Hwy 55	53.365	-103.263
Chemong Creek at Hwy 9	53.194	-102.158
Churchill River at Otter Rapids	55.6408	-104.7292
Clearwater River at Hwy 955	56.899	108.981

Cole Creek at Hwy 903	55.08	-108.359
Colin River at Lake Athabasca	59.467	-109.767
Collins Creek at Midwest Lake Road, W of Wollaston Lake	58.217	-103.717
Courtney Lake at Hwy 905	57.386	-103.979
Crackingstone River at Cinch Lake Bridge, 4.3km SW of Uranium City	59.533	-108.667
Crackingstone River at Laredo Road Bridge, 8km SW of Uranium City	59.5	-108.7
Crean River at Hwy 2	54.1621	-105.9504
creek at km 65 of Hwy 9	53.37	-102.088
creek at km 95 of hwy 2	54.067	-105.933
creek entering SK River 11 miles downstream from Tobin Lake	53.75	-103.067
creek from Jean Lake, Bushell Road, 5.6km SW of Uranium City 59 32' 31"N 108 41' 33"W	59.5419	-108.693
creek from Strike Lake, 9.6km E of Uranium City	59.545	-108.452
creek into E side of Jean Lake, 1.5km NW of Uranium City	59.566	-108.625
creek into NE end of Jean L., 2.2km NNW of Uranium City	59.583	-108.617
Crooked Lake Fen	50.649	-102.841
Crystal Lake	51.85	-102.43
Dennis Creek DFB 1999-03	54.45	-108.8
Emma Lake	53.60	-105.95
Faford Lake	53.22	-103.1
Fir River at Hudson Bay Regional Park	52.8213	-102.3884
Fookes Creek at Fookes Lake outflow, 10.5km E of Uranium City	59.55	-108.433
Fredette River at Fredette Lake outflow, 3.6km NNE of Uranium City	59.467	-108.25
Fredette River at Uranium City	59.557	-108.608
Fredette River, 0.4km ENE of Uranium City	59.559	-108.605
Frenchman River at Ravenscrag, 22km west of Eastend	49.4897	-109.0872
Giekie River 15 km upstream of Hwy 905	57.6	-104.133
Giekie River at Hwy 905	57.703	-103.951
Goodsoil	54.403	-109.219
Green Bush Creek at Hwy 3	52.8353	-102.7012
Greer Creek, at Greel Lake outflow, 8.5km ESE of Uranium City	59.55	-108.45
Iskwantam Lake	55.567	-103.57
Jean Creek at Bushell Road Bridge, 5.6km SW of Uranium City	59.517	-108.667
Johnson River at Hwy 905	57.337	-103.998
lake 2 miles S of Hague	52.49	-106.42
Lake Athabasca, north shore, near Uranium City	59.433	-108.583
lake near Uranium City	59.53	-108.7
Lake Yakon, sand dune (L. Yakow??)	59.2	-108.02
Lakeview Pond, Saskatoon	52.098	-106.595
LaRonge	55.0377	-105.3114
light trap at Saskatoon Forestry Farm	52.15	-106.60
lily pond on Hwy 3	53.279	-106.968
Little Red River at Prince Albert	53.2147	-105.7073

Low Creek at Hwy 904	54.824	-108.478
MacLennan River at Hwy 2	54.2	-105.933
McDougal Creek at Hwy 120	54.1034	-104.5372
McFarlane River 59-09N, 107-54W	59.15	-107.9
McFarlane River 59-12N, 107-55W	59.2	-107.917
McFarlane River near S shore of Lake Athabasca	59.183	-107.933
Mckenzie Creek at the Bow River at Hwy 165	54.793	-105.283
McVey Creek at Hwy55	53.426	-102.682
Meadow Creek, downstream from tailings pond, 9.0km ESE of Uranium City	59.55	-108.45
Meeyomoot River at Hwy 165	54.7676	-105.1584
Melville Lake, east shore, 4.1km E of Uranium City	59.55	-108.533
Mickey Creek, 50m downstream from Mickey Lake, 9.5km ENE of Uranium City	59.62	-108.483
Mistohay River at Hwy 104	54.445	-109.116
Montreal River at Hwy 2	55.0377	-105.3114
Montreal River at Station 2	54.87	-105.76
Nemeiben River near Lac LaRonge	55.1730	-105.3143
no name creek, UFB 1999-01		
North Saskatchewan River 20 miles N of Lloydminster	53.5980	-110.0043
North Saskatchewan River at Battleford	52.7453	-108.2978
North Saskatchewan River at Borden Bridge	52.3714	-107.1453
North Saskatchewan River at Cecil Ferry	53.2290	-105.5114
North Saskatchewan River at Hwy 12	52.633	-106.817
North Saskatchewan River at Lacolle Falls	53.217	-105.5
North Saskatchewan River at Maymont Ferry	52.4832	-107.6995
North Saskatchewan River at Prince Albert	53.2	-105.75
North shore of Lake Athabasca	59.433	-108.583
North White Poplar Creek at Hwy 9	53.515	-102.086
Otosquen Creek at Hwy 9	53.301	-102.158
Overflowing River at Hwy 9	53.026	-102.3216
Pasquia River at Hwy 9	53.2526	-102.1138
Patterson Lake (59° 56' 00" N - 102° 18' 00" W?)	59.933	-102.3
Pig Lake, N of Points North	58.54	-103.62
Pike Lake at boat launch	51.91	-106.82
Pine Creek at Hwy 169	54.216	-105.62
pond 2 km W of Hwy 11 on Baker Road, S of Saskatoon	52.07	-106.62
pond 5 miles SE of Saskatoon	52.05	-106.47
pond 8 miles E of Saskatoon, on Hwy 5	52.145	-106.47
Pond L.C. near Saskatoon	52.14	-106.48
Puskwakau River at Hwy 106	54.5160	-103.5407
Qu'Appelle River at Hwy 47	50.64	-102.85
Quill Lake	51.88	-104.35
Red Deer River at Hudson Bay Regional Park	52.8144	-102.3730
Red Deer River at Rendek Elm Forest	52.9105	-102.030
Red Earth Creek at Hwy 163	53.35	-102.983

river 10 miles N of Green Lake	54.4118	-107.830
river 10km W of Uranium City	59.567	-108.783
river at mile 85 of Hwy 102	54.43	-105.82
Royal Lake (56° 03' 00" N - 103° 07' 00" W??)	56.05	-103.117
Rystom's Pond, 4km SE of Saskatoon	52.08	-106.52
Saskatchewan River at Gronlid	53.244	-104.463
Saskatchewan River at Nipawin	53.293	-104.083
Saskatchewan River at Squaw Rapids powerhouse boat ramp	53.683	-103.333
Saskatoon	52.132	-106.633
Shaft Creek, 20m upstream from Melville Lake, 4.0km ENE of Uranium City	59.57	-108.68
Shuard Creek 11 miles S of Piapot	49.831	-109.090
small lake off Sandy Lake 56° 59' 00" N - 107° 17' 00" W	56.983	-108.283
Souris River at Hwy 47	49.11	-102.99
South Saskatchewan River 15 miles North of Saskatoon	52.31	-106.45
South Saskatchewan River at Batoche Ferry	52.76	-106.10
South Saskatchewan River at Birch Hills Ferry	53.07	-105.51
South Saskatchewan River at Chesterfield Bridge	50.97	-109.53
South Saskatchewan River at Clarkboro Ferry	52.31	-106.45
South Saskatchewan River at Fenton Ferry	53.02	-105.58
South Saskatchewan River at Gabriel's Bridge		
South Saskatchewan River at Hague Ferry	52.48	-106.29
South Saskatchewan River at Lemsford Ferry	51.03	-109.12
South Saskatchewan River at Queen Elizabeth Power Station	52.13	-106.65
South Saskatchewan River at Red Deer River forks	50.95	-109.85
South Saskatchewan River at Saskatoon	52.14	-106.64
South Saskatchewan River at St. Laurent Ferry	53.067	-105.483
South Saskatchewan River at St. Louis	52.917	-105.8
South Saskatchewan River at Weldon Ferry	53.17	-105.16
South White Poplar Creek at Hwy 9	53.496	-102.085
Spruce River	53.36	-105.76
Steephill rapids, #2		
stream #1 on Hwy 55	53.469	-102.51
stream 1/3 mile SW of East Block Cypress Hills park gate	49.66	-109.46
stream 11 miles (17.6km) S of Piapot	49.82	-109.08
stream 2 miles S of Hudson Bay	52.81	-102.37
stream at km 105 of Hwy 905	57.084	-103.773
stream at km 135 of Hwy 102, near N end of McLennan Lake	55.95	-104.18
stream at km 150 of Hwy 905	57.420	-103.929
stream at km 155 of Hwy 905	57.383	-103.95
stream at km 165 of Hwy 903 55 24' 55"N 108 43' 06"W	55.415	-108.718
stream at km 170 of Hwy 903 55 25'54"N 108 46' 10"W	55.432	-108.769
stream at km 175 of Hwy 903	55.468	-108.859
stream at km 188 of Hwy 905	57.72	-103.95
stream at km 195 of Hwy 905	57.78	-103.92

stream at km 75 of Hwy 955	56.989	-109.034
stream at km 75 of Hwy 955	56.989	-109.034
stream at mile 107 (km171) of Hwy 955	57.75	-109.4
Stream at mile 140 of Hwy 155		
stream at mile 2 of Hwy 165	54.803	-105.309
stream draining bog at Hwy 955 57 13'32"N 109 05'14"W	57.226	-109.087
stream on Hwy 3, 52 50' 32"N 102 44' 20"W	52.842	-102.739
stream on Hwy 55, 53 28' 02"N 102 33' 41"W	53.467	-102.561
stream on Hwy 9, S of Hudson Bay 52 40'03"N 102 22'19"W	52.668	-102.372
stream on Hwy 905, 57 15'07"N 103 59'54"W	57.252	-103.998
stream on Hwy 955 57 04' 29"N, 109 04' 15"W	57.075	-109.071
stream on Hwy 965 55 06'55"N 107 54' 51"W	55.115	-107.914
stream/beaver pond at km 155 of Hwy 955	57.616	-109.388
Strike creek, 80m downstream from Strike Lake, 9.8km E of Uranium City	59.54	-109.38
Strike Lake near Lake Athabasca	59.54	-109.38
Sturgeon River at Hwy 240	53.489	-106.316
Swift Current Creek at Twin Forks	49.89	-108.46
Thickbush Creek at Hwy 9	53.467	-102.08
Torch River at Hwy 106	53.65	-104.61
Torch River at Hwy 120	53.742	-105.119
Torch River at Hwy 35	53.535	-104.057
Torch River N of Hwy 35	53.539	-104.069
Turtle Lake	53.601	-108.593
Umpferville River at Hwy 905	58.093	-103.792
Wapomon Lake		
Waskesiu River at Hwy 2	54.076	-105.989
Waskwei River at Hwy 9	53.419	-102.074
Waterhen River at Hwy 4	54.41	-108.62
Waterhen River at Hwy 26	54.444	-109.227
Wathaman River at Hwy 905	57.078	-103.742
Weyakwin Lake at boat launch	54.434	-105.967
Weyakwin River at Hwy 2	54.434	-105.820
Whitefox River at Hwy 35	53.517	-104.057
William River	59.131	-109.284
Wollaston Lake	58.250	-103.612
Wollaston Lake at Hidden Bay	58.099	-103.791
Wuchewan River at Hwy 106 (Hwy 165?)	54.64	-104.53

APPENDIX III. FIGURES REFERRED TO IN THE TEXT

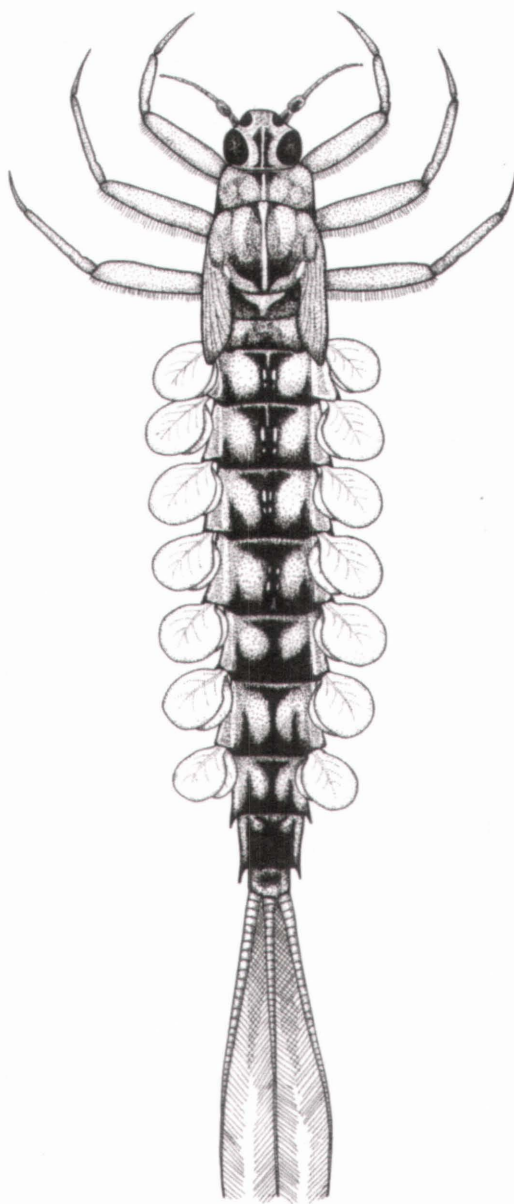


Figure 8. *Analettris eximia*, larva, dorsal view.

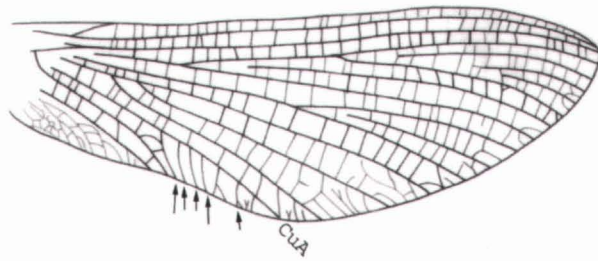


Figure 9. *Analettris eximia*, fore wing. Arrows indicate cubital intercalaries.

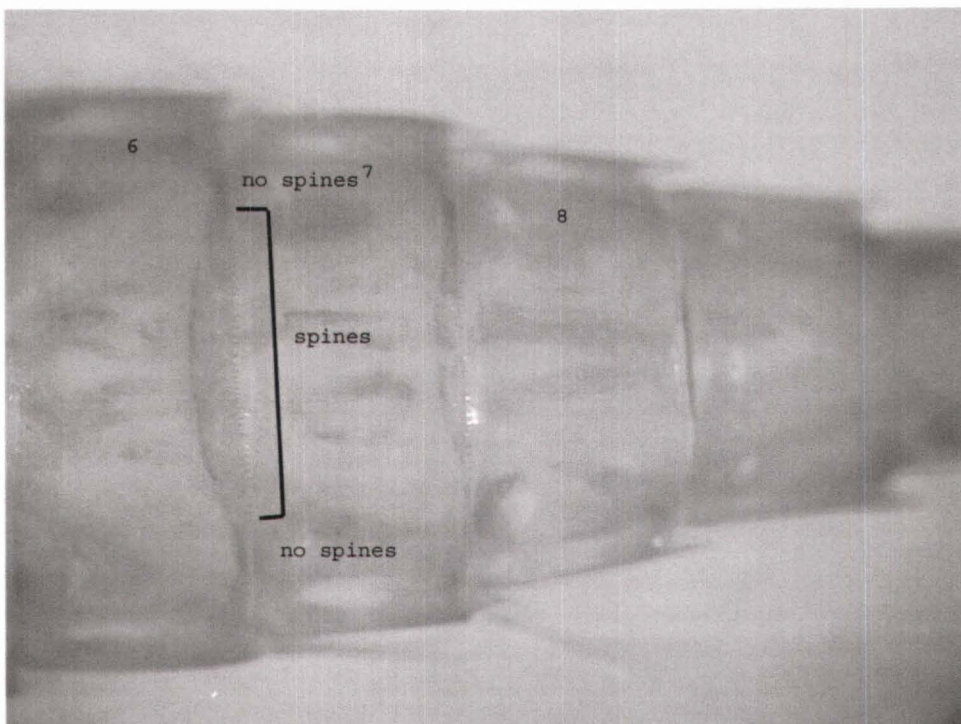


Figure 10. *Ameletus oregonensis* larva, abdominal sterna 6-8.

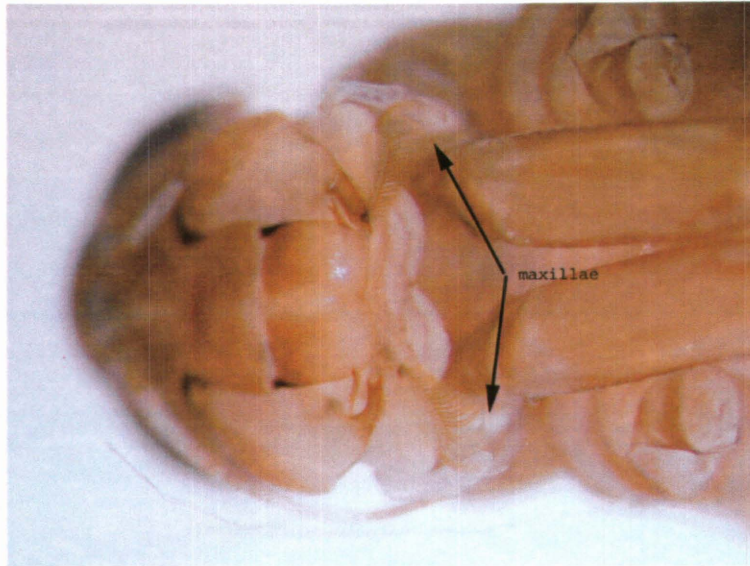


Figure 11. *Ameletus oregonensis*, larval maxillae with pectinate spines indicated.

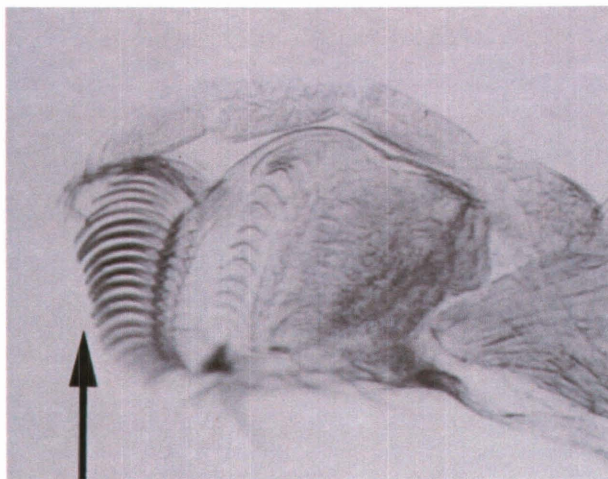


Figure 12. *Ameletus subnotatus*, larval maxilla. Arrow indicates pectinate spines.

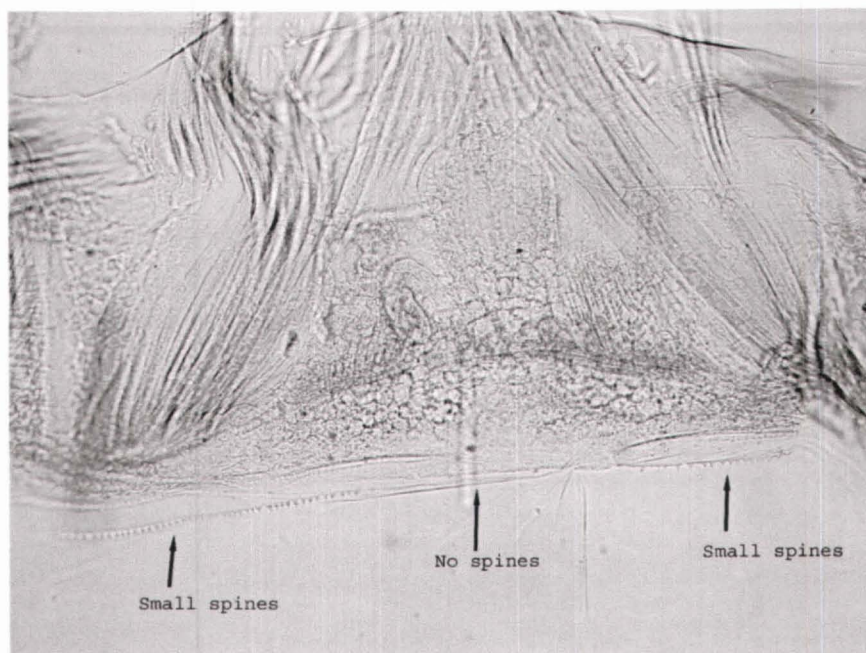


Figure 13. *Ameletus subnotatus* larva, posterior margin of sternum 6.

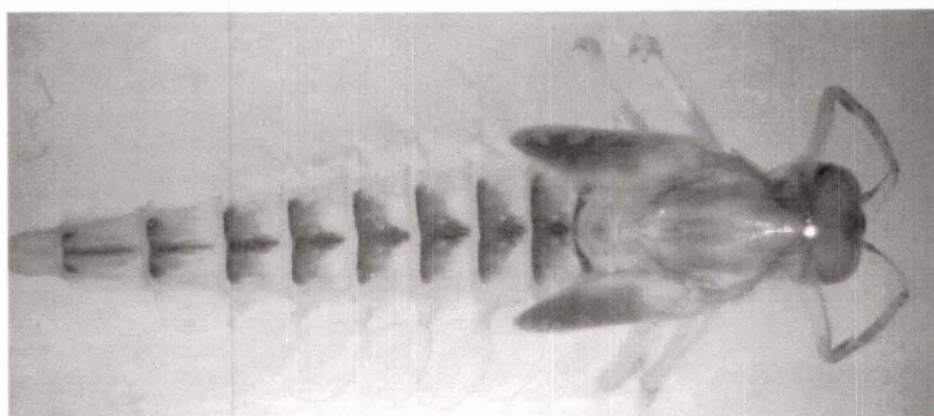


Figure 14. *Ametropus neavei*, mature male larva, dorsal aspect.

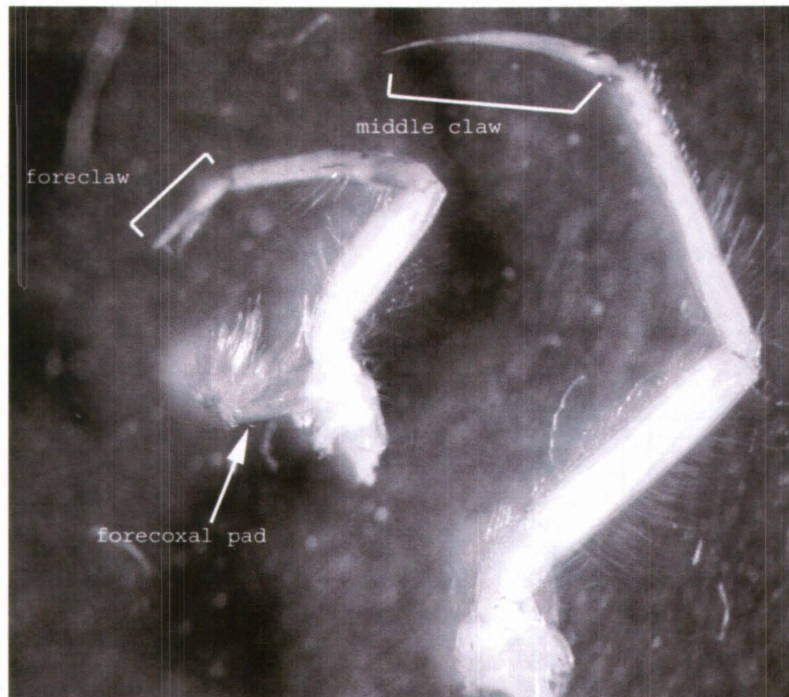


Figure 15. *Ametropus neavei* larval fore and middle legs.

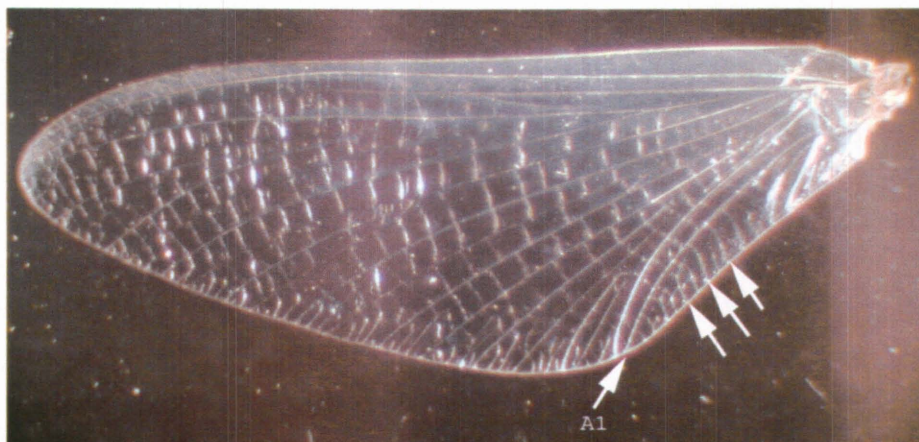


Figure 16. *Ametropus neavei*, fore wing. Arrows indicate A_1 and veinlets attaching A_1 to hind margin.

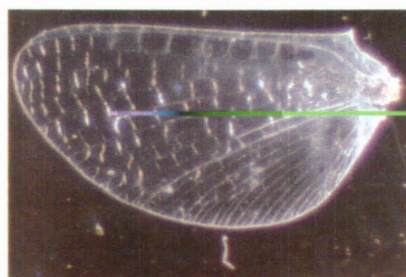


Figure 17. *Ametropus neavei*, hind wing.

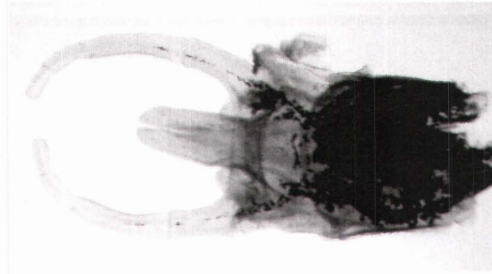


Figure 18. *Ametropus neavei*, male genitalia.

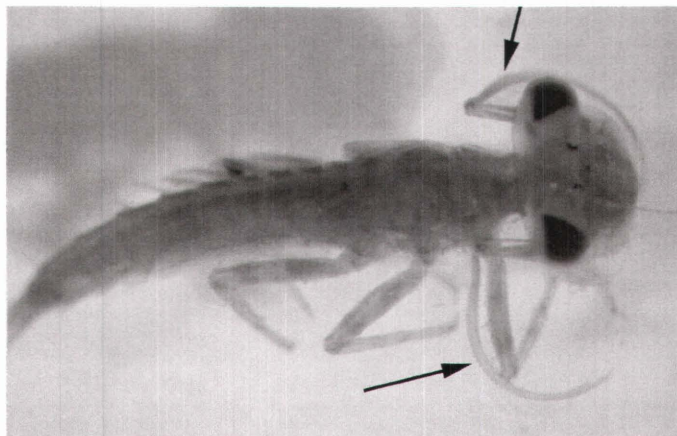


Figure 19. *Arthroplea bipunctata* larva. Arrows indicate elongate maxillary palps.

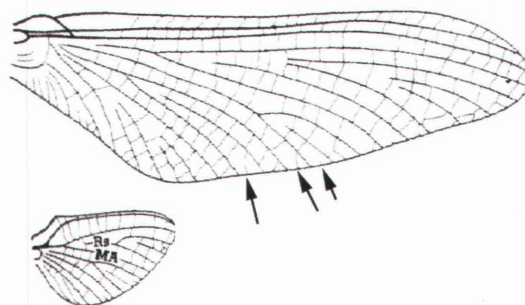


Figure 20. *Arthroplea bipunctata*, wings. Arrows indicate marginal intercalaries. Modified from Edmunds et al. (1976).



Figure 21. *Acentrella insignificans*, mature larva with right fore wing pad removed to show the outlined hind wing pad.

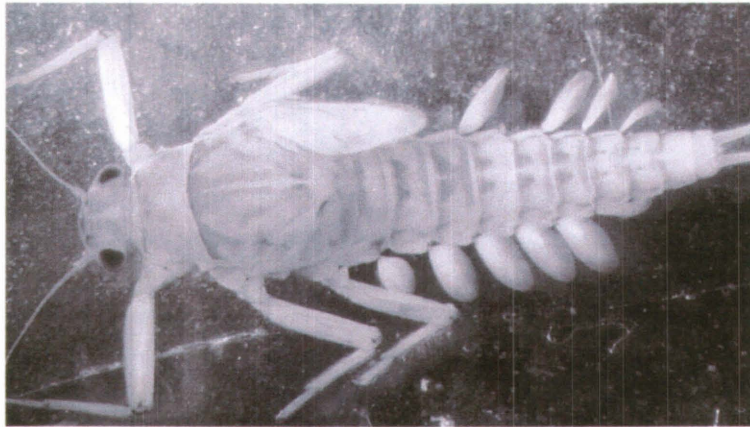


Figure 22. *Acentrella insignificans*, dorsal habitus.

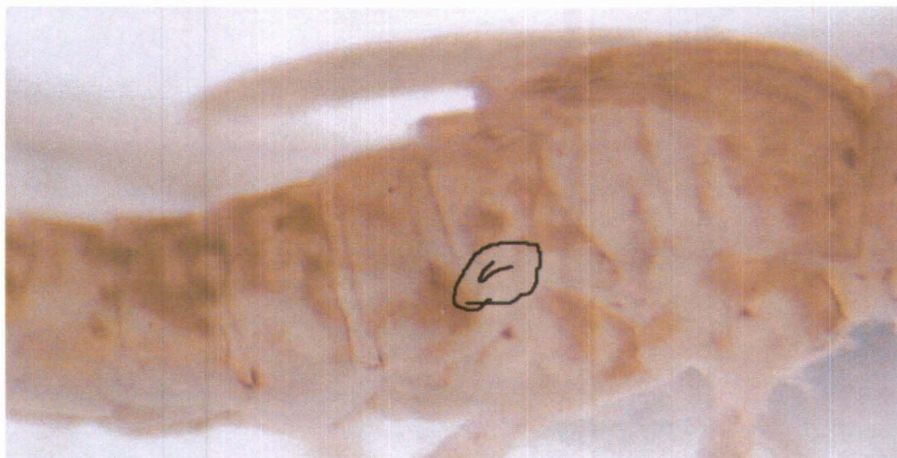


Figure 23. *Acentrella parvula*, larva with right fore wing pad removed to show the circled and outlined strap-like hind wing pad.

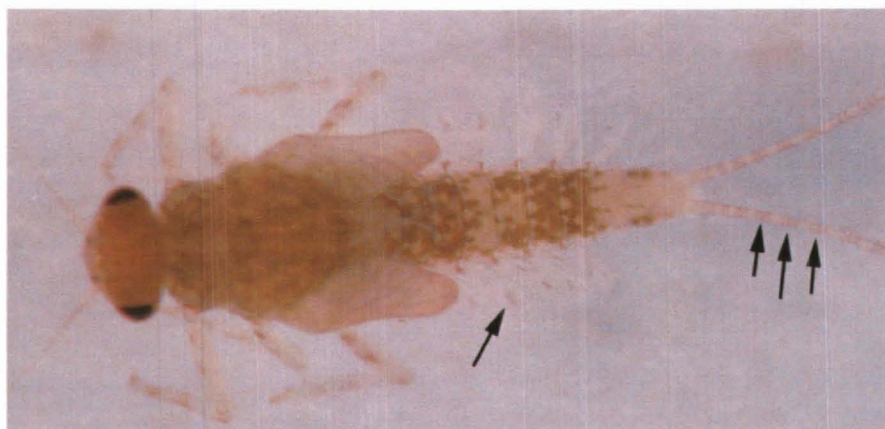


Figure 24. *Acentrella parvula*, larval habitus. Arrows indicate dark spot on gills and alternating light and dark bands on cerci.



Figure 25. *Acentrella parvula*, larval labium.

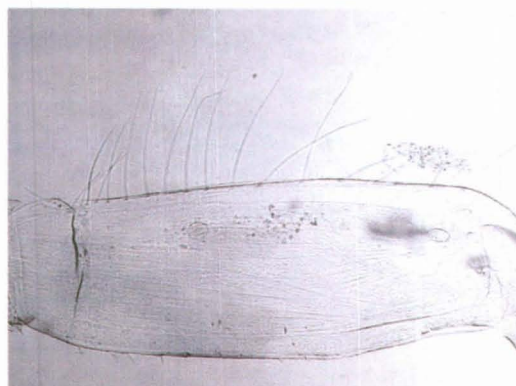


Figure 26. *Acentrella parvula*, larval fore femur.

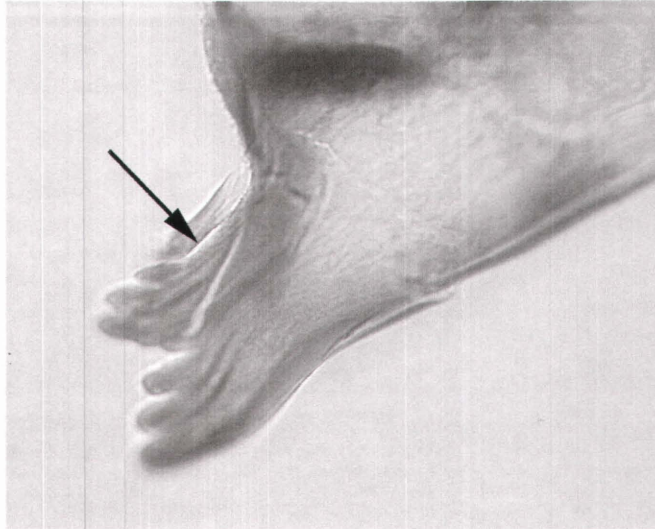


Figure 27. *Acentrella parvula*, right mandible. Arrow indicates smooth margin of inner incisor.



Figure 28. *Acentrella turbida*, female imago. Arrow indicates pointed mesoscutum.

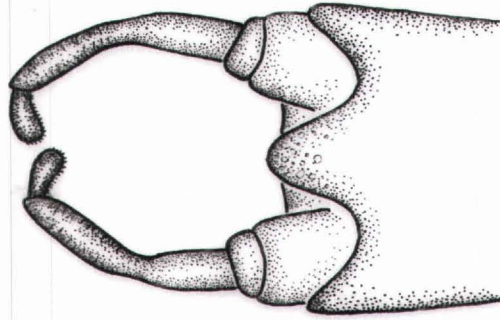


Figure 29. *Acerpenna akataleptos*, male genitalia.

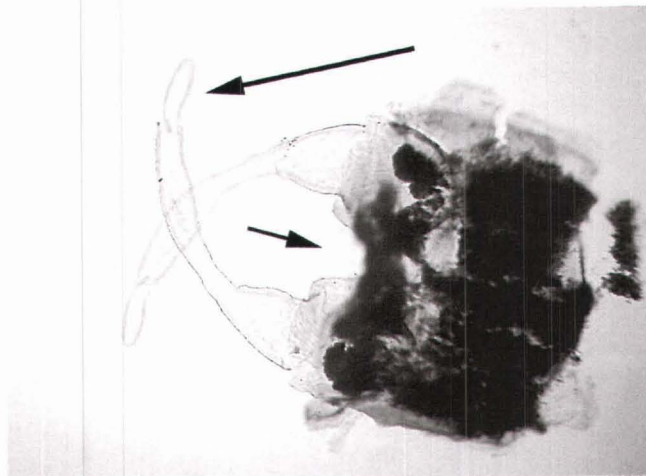


Figure 30. *Acerpenna pygmaea*, male genitalia. Arrows indicate elongate terminal segment of forceps and absence of penis cover.

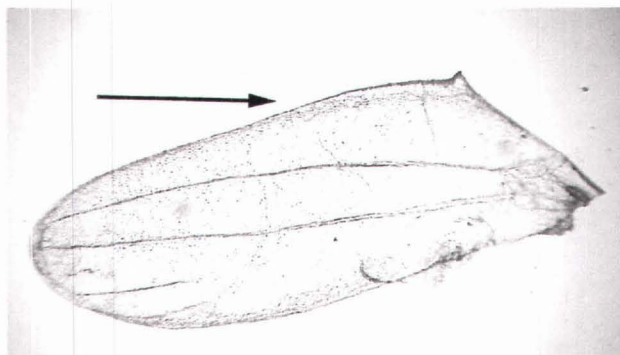


Figure 31. *Acerpenna pygmaea*, hind wing. Arrow indicates undulate margin.

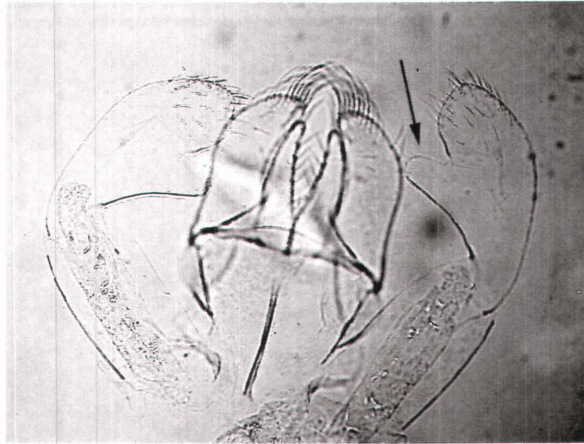


Figure 32. *Acerpenna pygmaea*, labium. Arrow indicates thumb-like extension of palp.

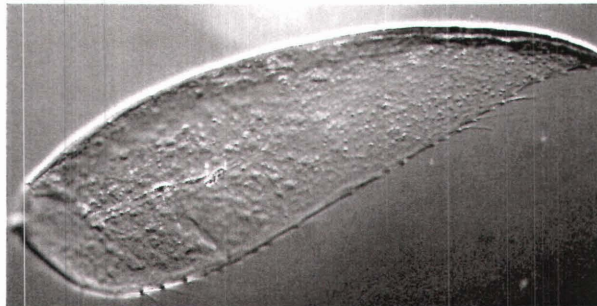


Figure 33. *Acerpenna pygmaea*, gill seven.

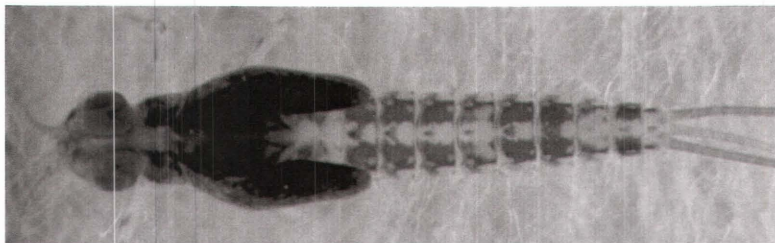


Figure 34. *Acerpenna pygmaea*, larval habitus

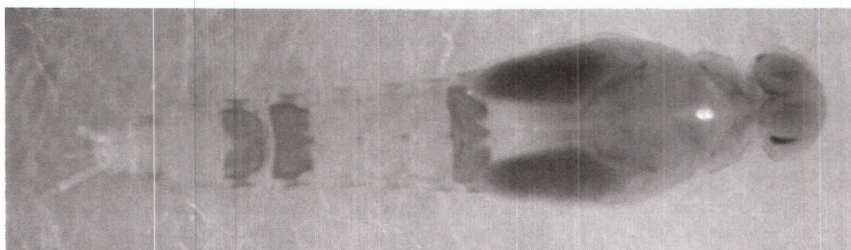


Figure 35. *Acerpenna* sp. A, habitus.

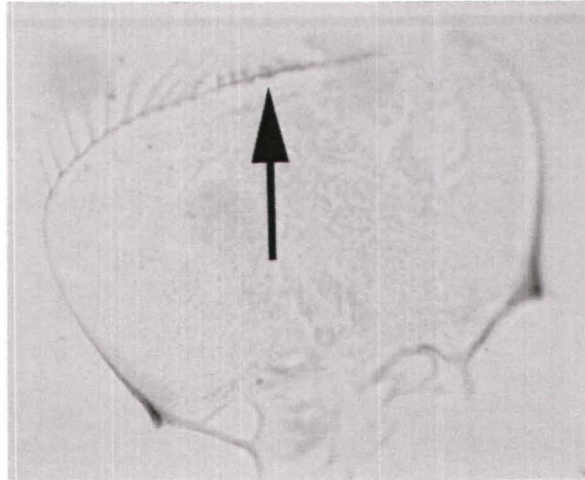


Figure 36. *Apobaetis indepressus*, labrum. Arrow indicates lack of a notch in anterior margin.



Figure 37. *Apobaetis indepressus*, larval middle leg.



Figure 38. *Apobaetis indepressus*, labial palp. Arrow indicates notch in labial palp.

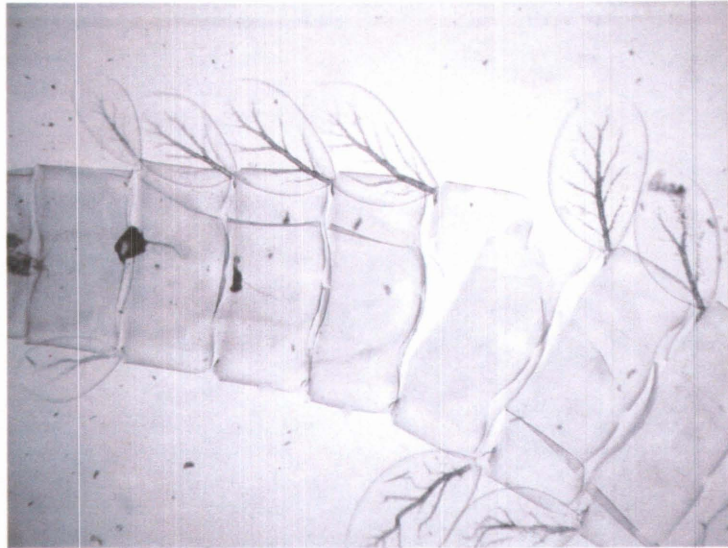


Figure 39. *Baetis brunneicolor*, larval exuviae.

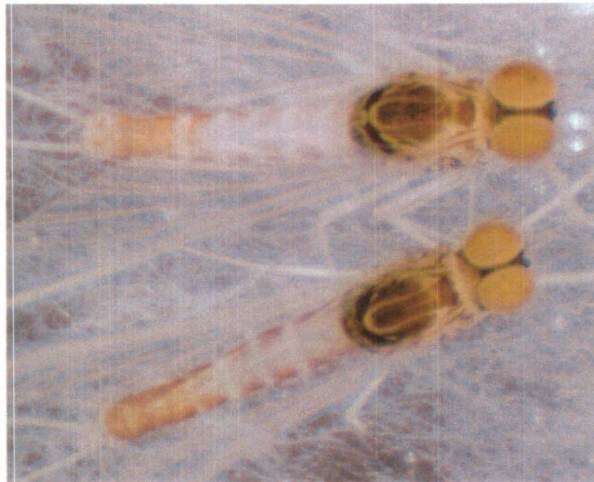


Figure 40. *Baetis brunneicolor*, male imagos.

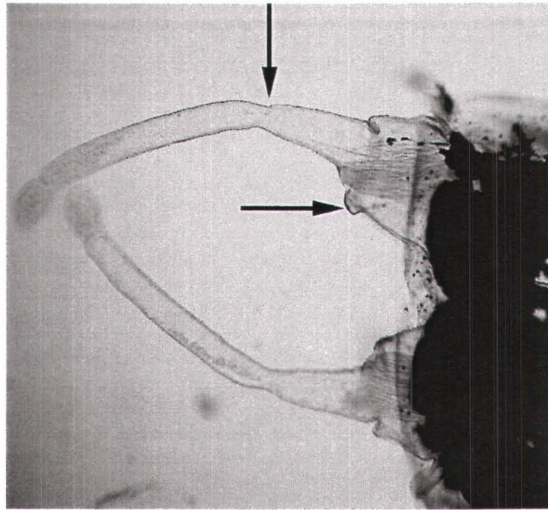


Figure 41. *Baetis brunneicolor*, male genitalia. Arrows indicate constriction on forceps and basal tubercle.



Figure 42. *Baetis bundyae*, gills.

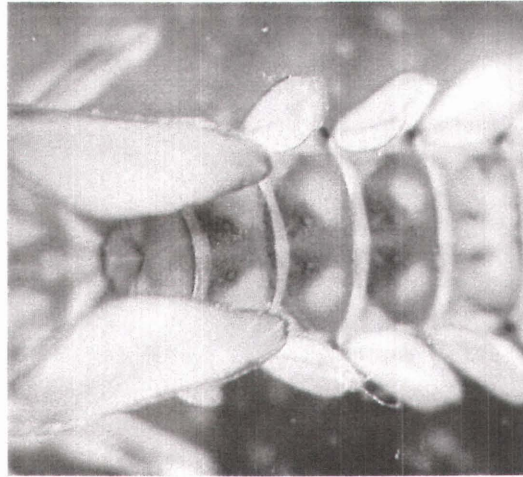


Figure 43. *Baetis flavistriga*, anterior abdominal terga.



Figure 44. *Baetis flavistriga*, larval labium.

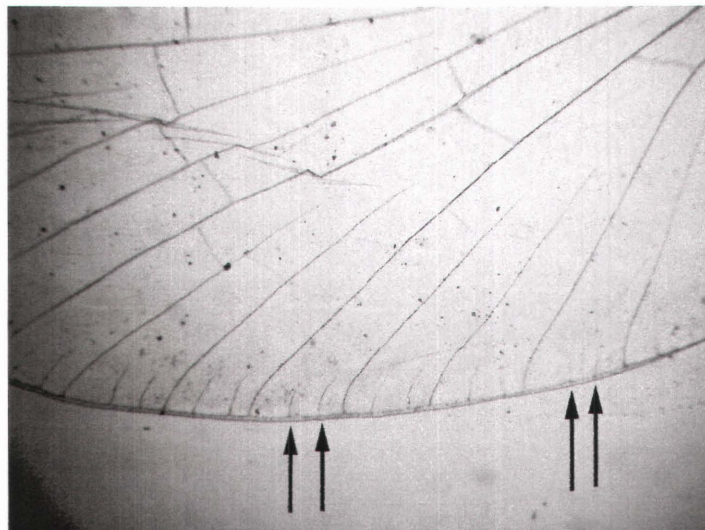


Figure 45. *Baetis flavistriga*, fore wing. Arrows indicate double margin intercalaries.

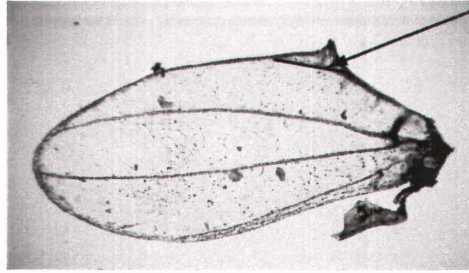


Figure 46. *Baetis flavistriga*, hind wing. Arrow and line indicate narrow base of costal projection.

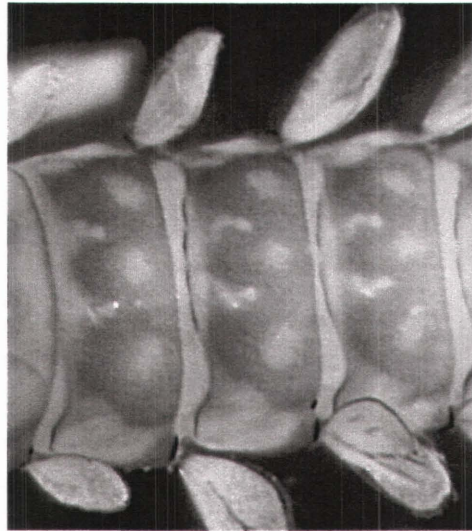


Figure 47. *Baetis intercalaris*, larval terga 2-4.

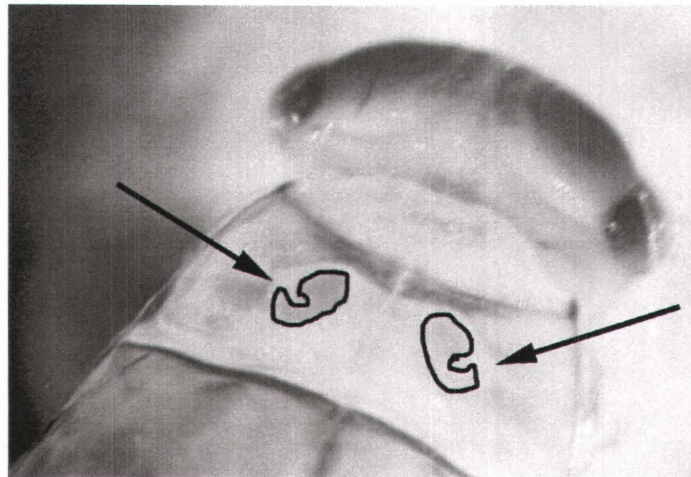


Figure 48. *Baetis tricaudatus*, larval pronotum. Dark bilobed marks indicated with outlining and arrows.

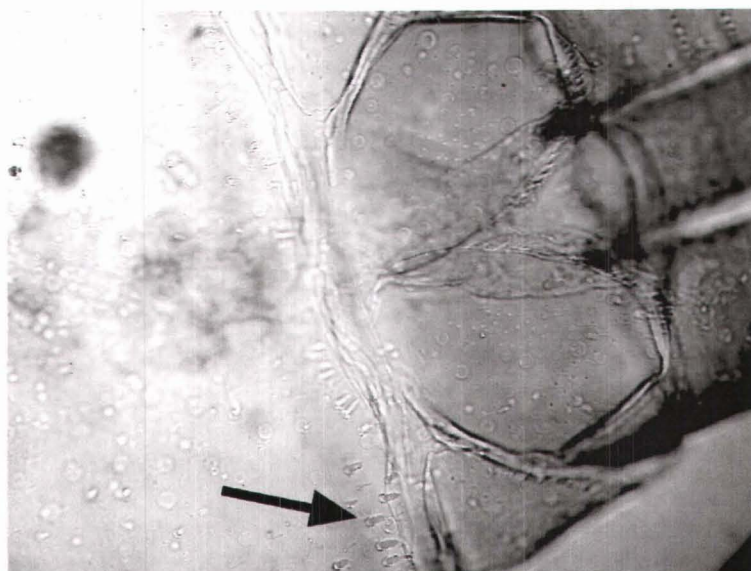


Figure 49. *Baetis tricaudatus*, sternum nine of larval exuviae. Arrow indicates robust setae.

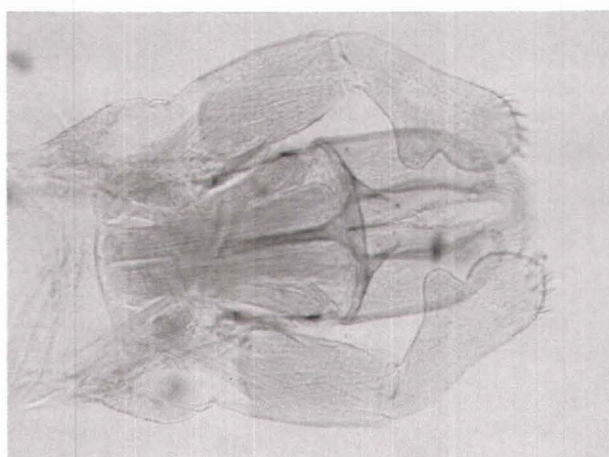


Figure 50. *Baetis tricaudatus*, larval labium.

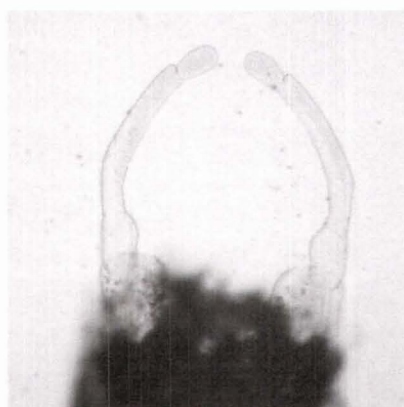


Figure 51. *Baetis tricaudatus*, male genitalia.

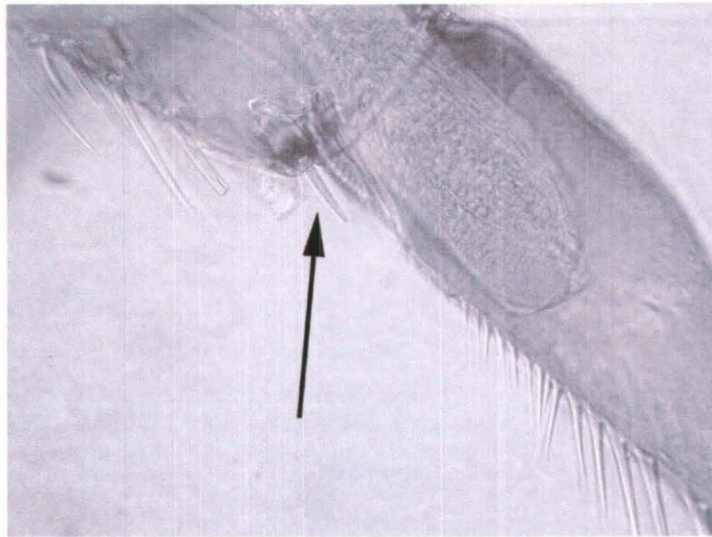


Figure 52. *Callibaetis ferrugineus*, fore tarsus. Arrow indicates apical seta.

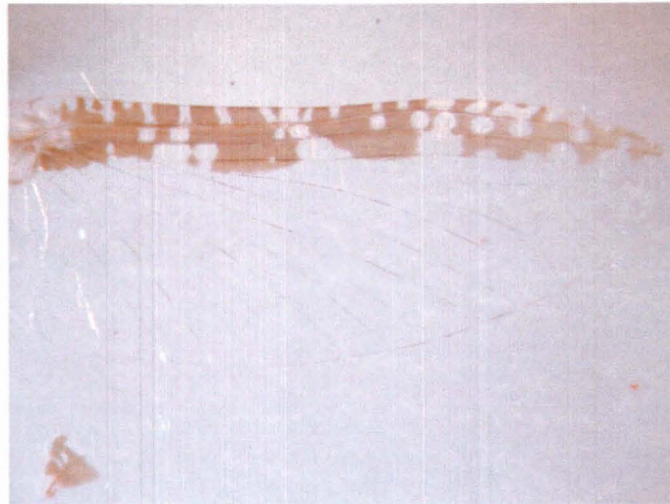


Figure 53. *Callibaetis ferrugineus*, wings.

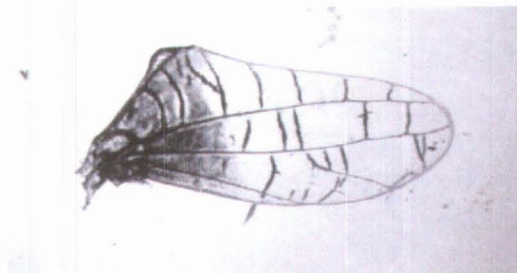


Figure 54. *Callibaetis ferrugineus*, hind wing.

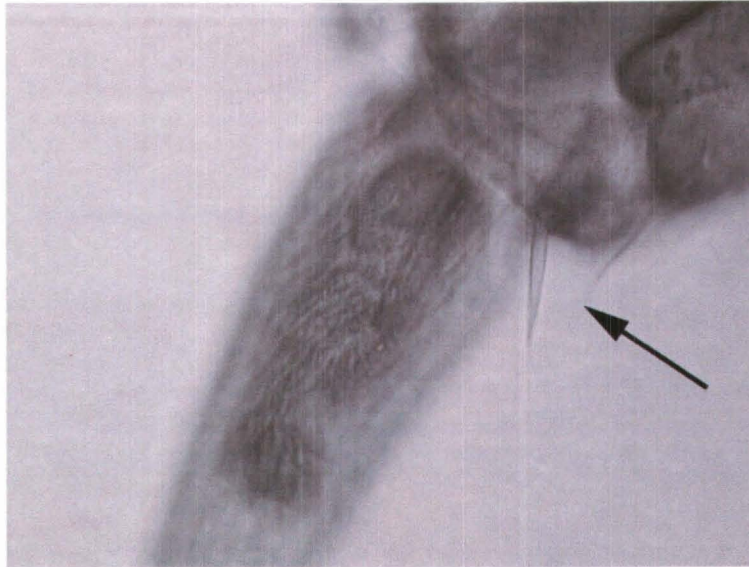


Figure 55. *Callibaetis pallidus*, fore tarsus. Arrow indicates apical seta.

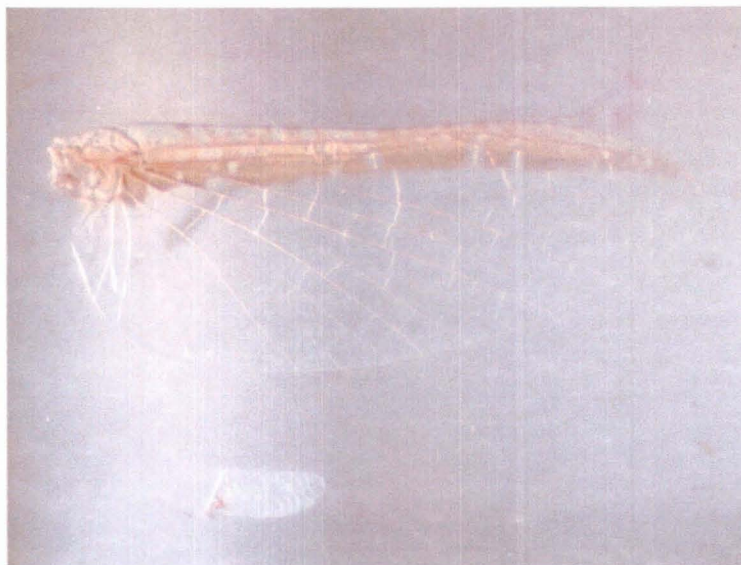


Figure 56. *Callibaetis pallidus*, wings.



Figure 57. *Camelobaetidius warreni*, fore tarsal claw.

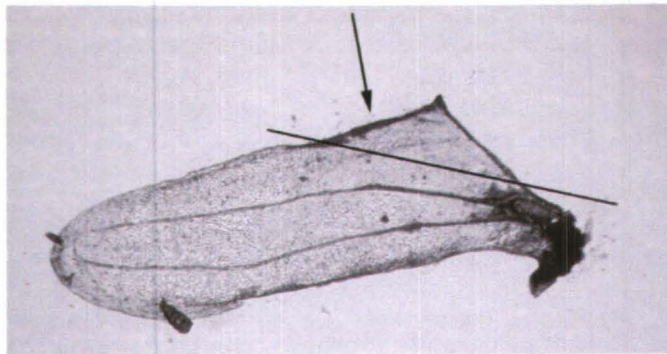


Figure 58. *Camelobaetidius warreni*, hind wing. Arrow and line indicate broad base of the costal process.

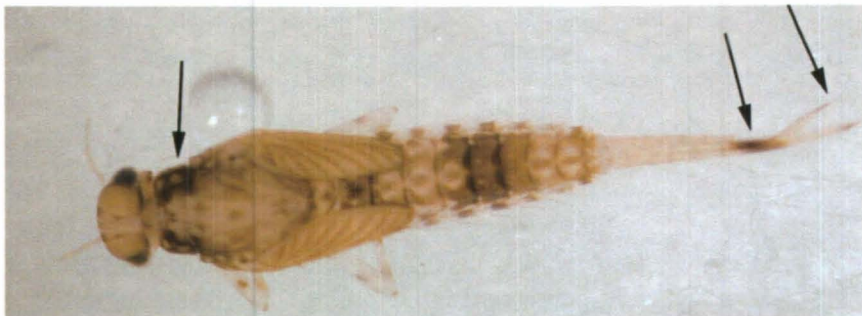


Figure 59. *Centroptilum album*, male larval habitus. Arrows indicate presence of two dark bands on the terminal filaments and the colouration of the pronotum.



Figure 60. *Centroptilum album*, female larval habitus.

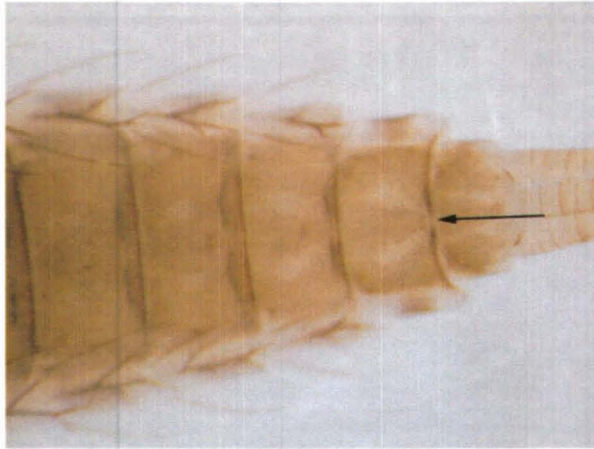


Figure 61. *Centroptilum album*, abdominal terga of female larva. Arrow indicates lack of median protuberance on posterior margin of tergum nine.



Figure 62. *Centroptilum bifurcatum*, larval habitus.

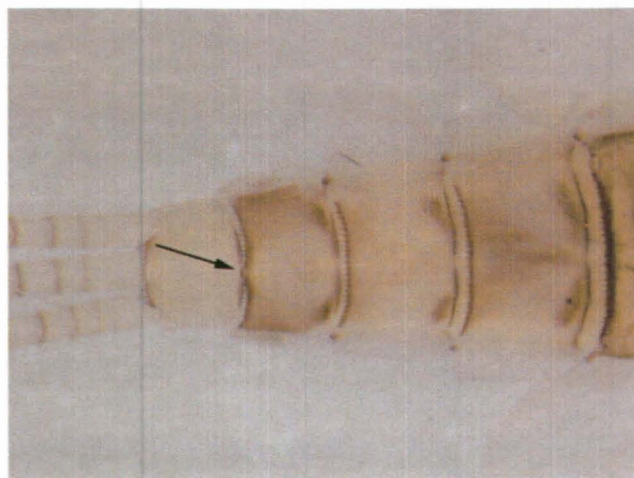


Figure 63. *Centroptilum bifurcatum*, larva, abdominal terga. Arrow indicates presence of a median protuberance on the posterior margin of tergum nine.

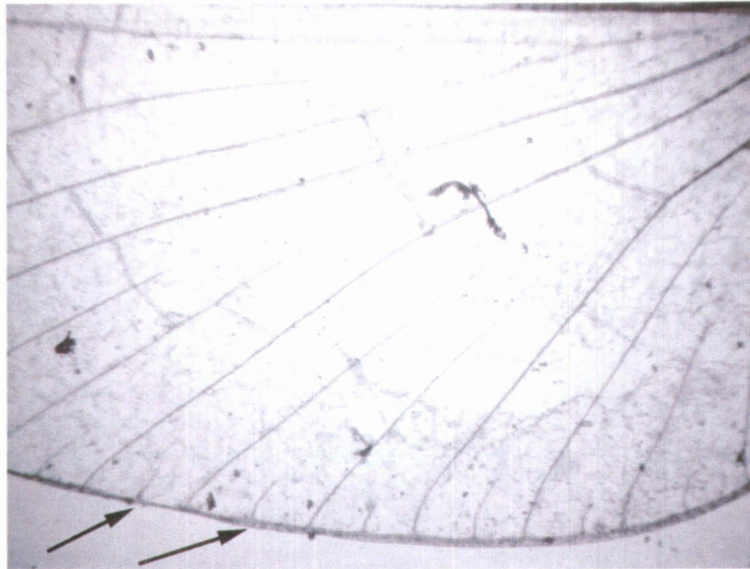


Figure 64. *Centroptilum bifurcatum*, fore wing. Arrows indicate single marginal intercalaries.

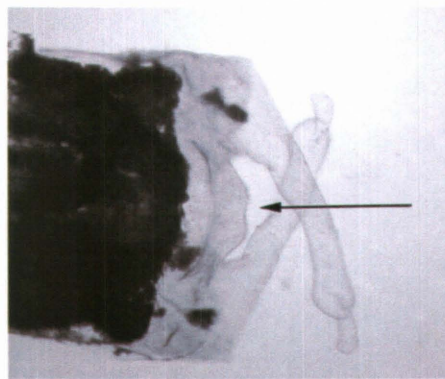


Figure 65. *Centroptilum bifurcatum*, male genitalia. Arrow indicates styliger plate.



Figure 66. *Centroptilum conturbatum*, larval habitus.

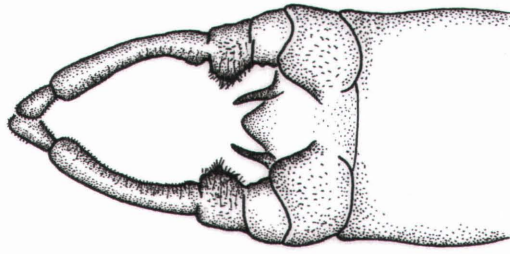


Figure 67. *Centroptilum conturbatum*, male genitalia.

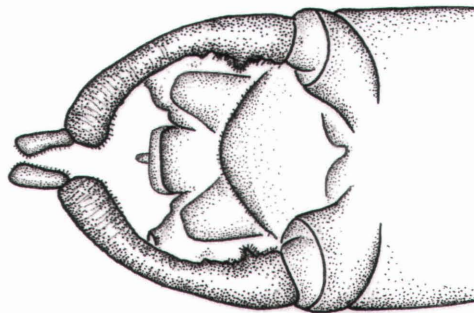


Figure 68. *Centroptilum convexum*, male genitalia.

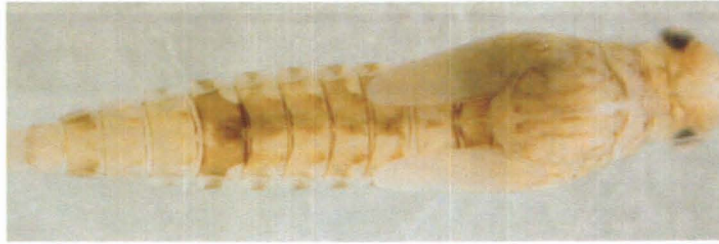


Figure 69. *Centroptilum victoriae*, larval habitus.

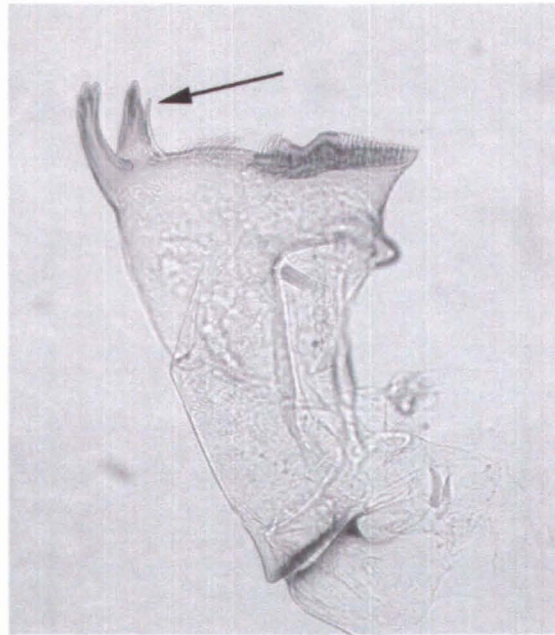


Figure 70. *Centroptilum victoriae*, larval right mandible. Arrow indicates slender prosthema.

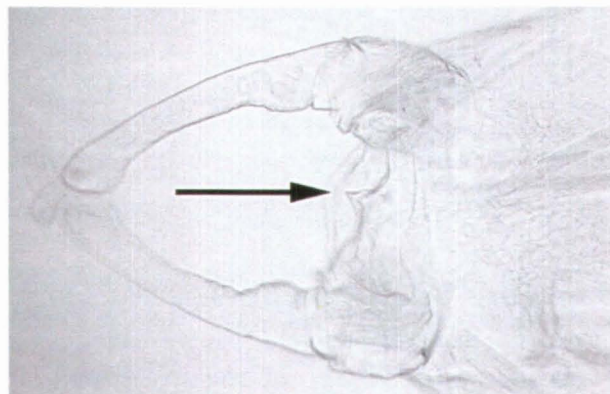


Figure 71. *Centroptilum victoriae*, male genitalia. Arrow indicates spine present between bases of forceps.

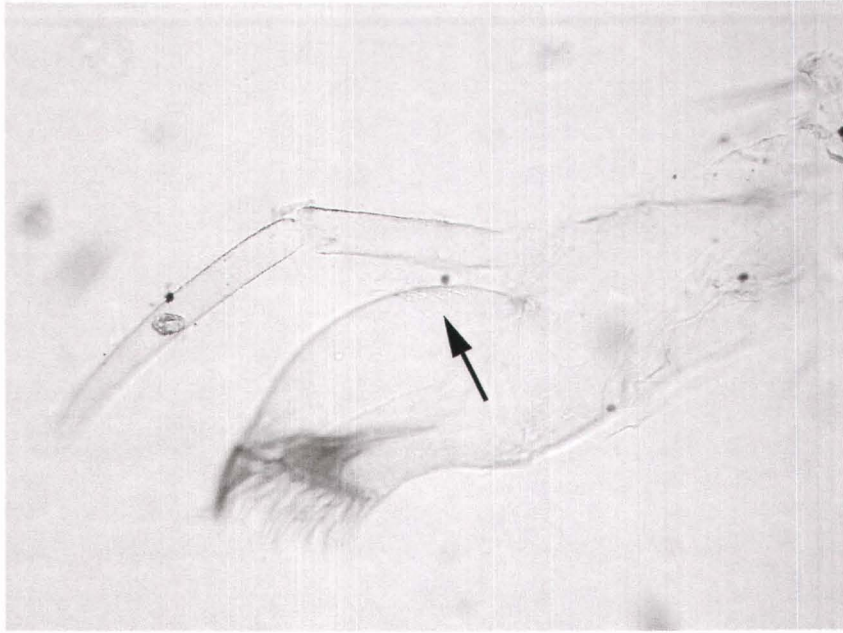


Figure 72a. *Cloeon dipterum*, larval maxilla. Arrow indicates patch of setae.



Figure 72b. *Cloeon dipterum*, larval labium.

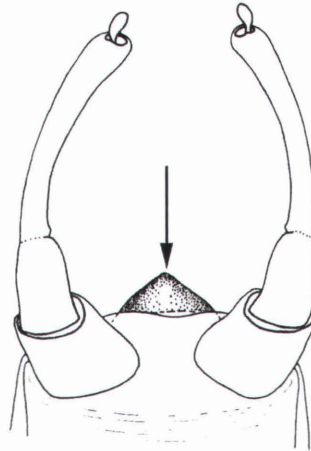


Figure 73. *Cloeon dipterum*, male genitalia. Arrow indicates coniform process between bases of forceps. Modified from Sowa (1975).

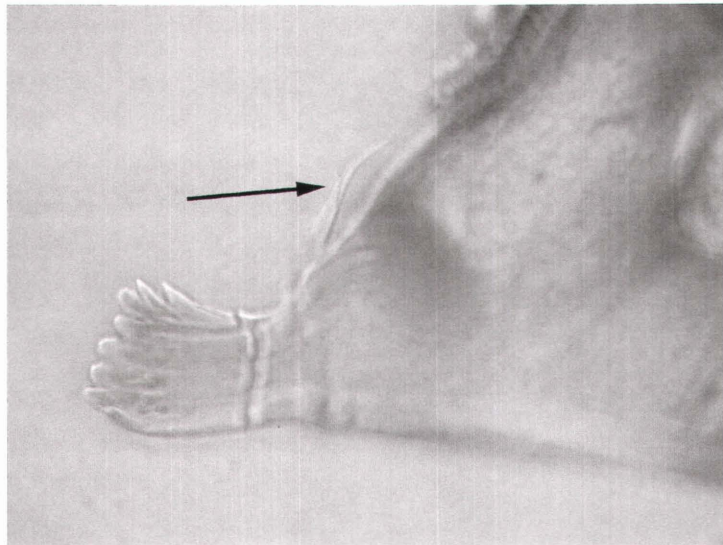


Figure 74. *Diphetor hageni*, right larval mandible. Arrow indicates bifurcate prostheca.

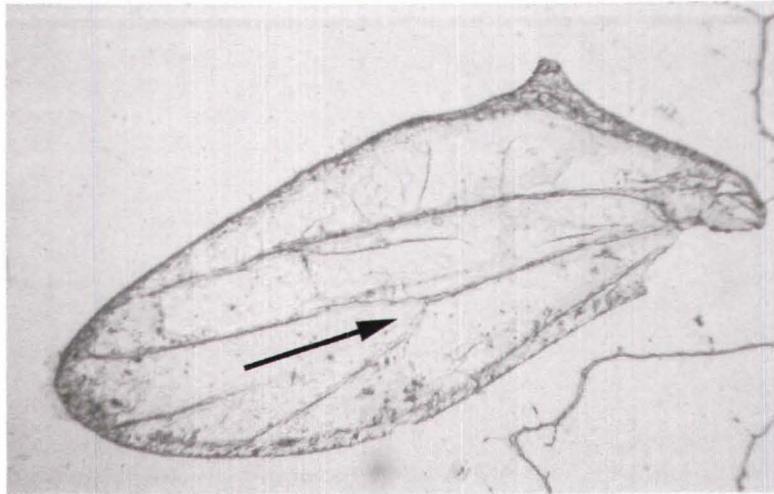


Figure 75. *Dipheter hageni*, hind wing. Arrow indicates forked longitudinal vein.

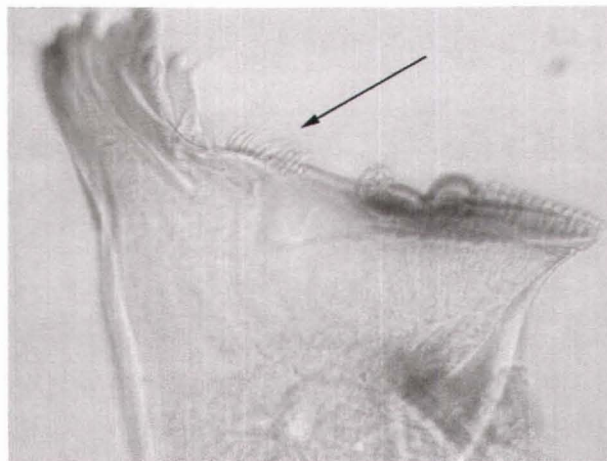


Figure 76. *Fallceon quillieri*, larval mandible. Arrow indicates setae.

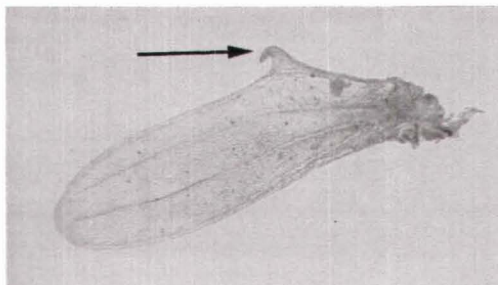


Figure 77. *Fallceon quillieri*, hind wing. Arrow indicates curved costal process.

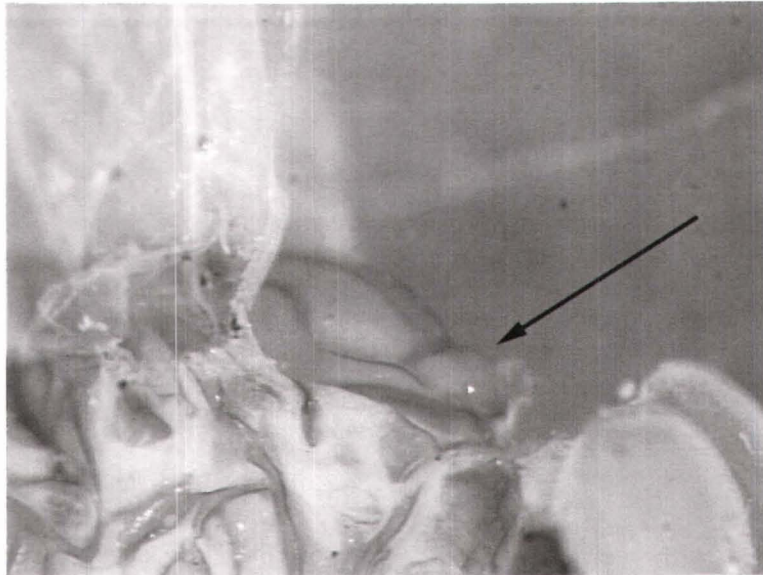


Figure 78. *Fallceon quilleri*, male imago. Arrow indicates rounded anterior edge of mesonotum.

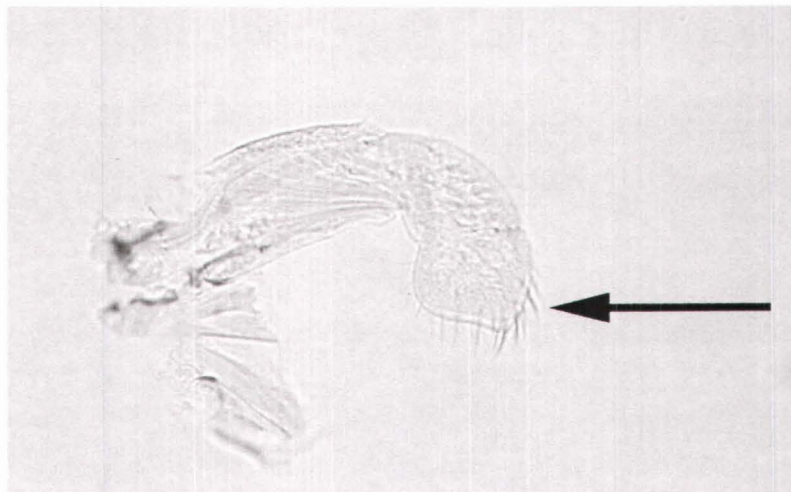


Figure 79. *Plauditus cestus*, larval labial palp. Arrow indicates subquadrate terminal segment.

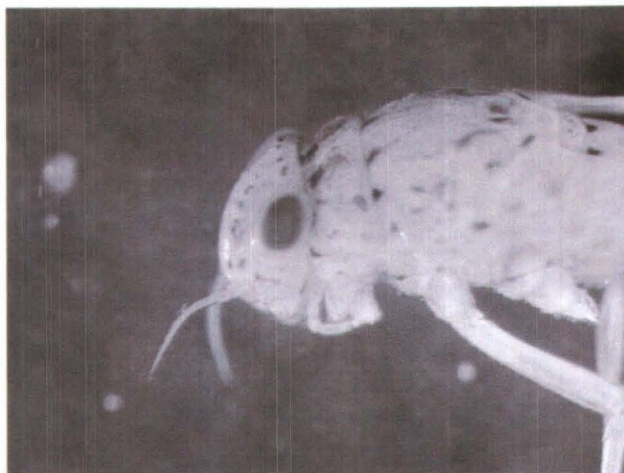


Figure 80. *Plauditus cestus*, lateral view of head and thorax of larva.

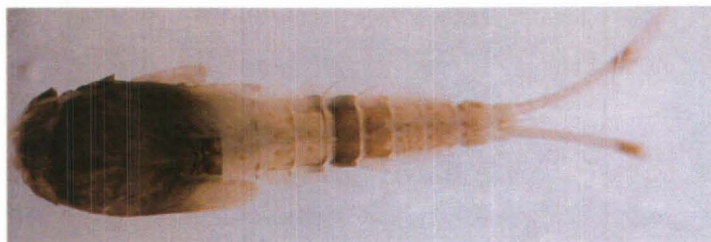


Figure 81. *Plauditus cestus*, larval habitus.

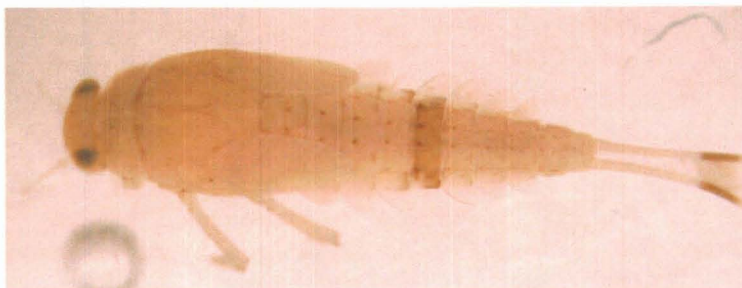


Figure 82. *Plauditus cestus*, larval habitus.

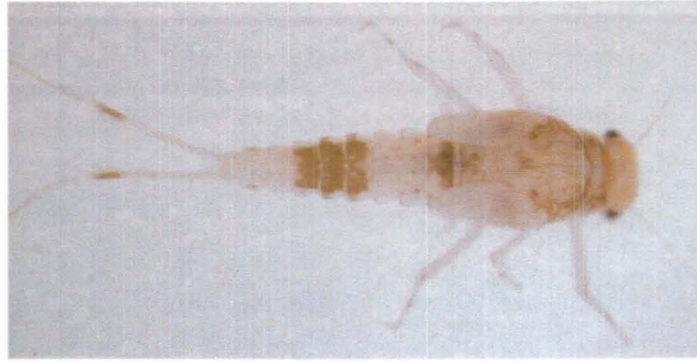


Figure 83. *Plauditus dubius*, male larval habitus.

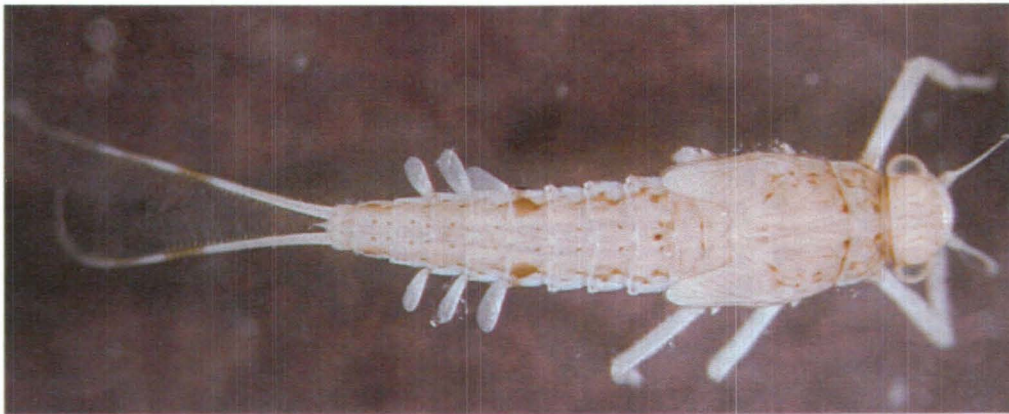


Figure 84. *Plauditus gloveri*, larval habitus.

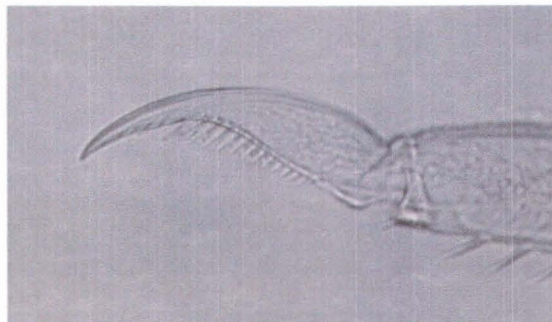


Figure 85. *Plauditus gloveri*, larval tarsal claw.

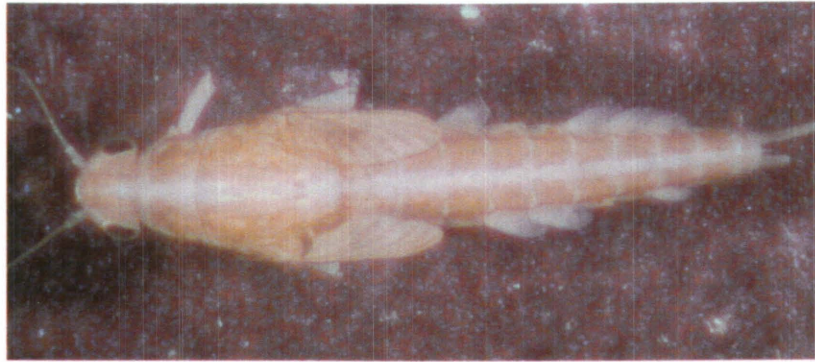


Figure 86. *Plauditus punctiventris*, larval habitus.

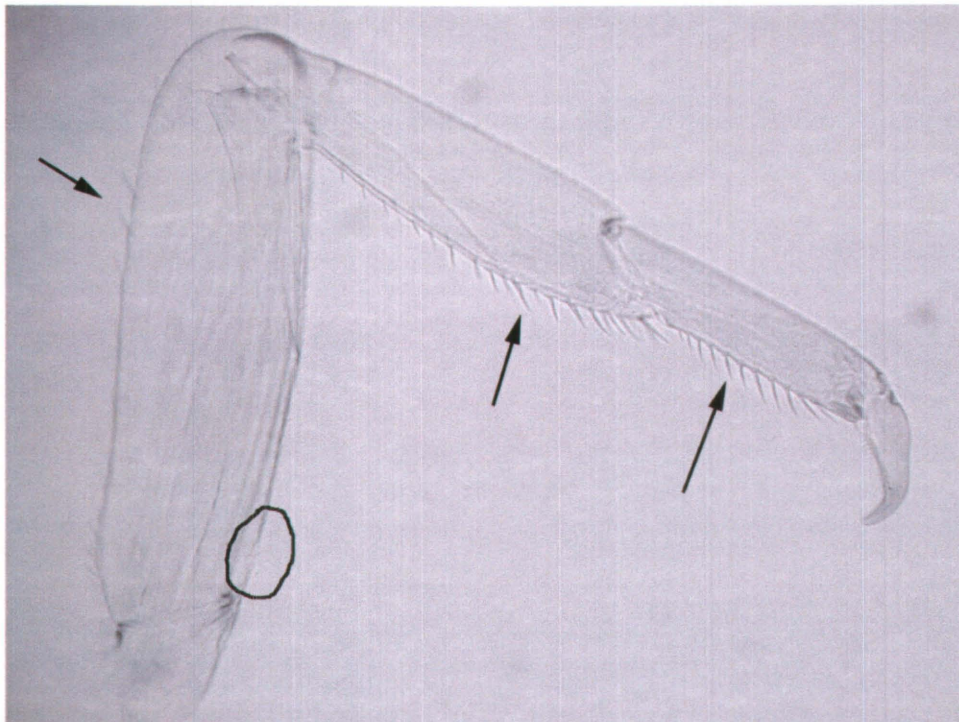


Figure 87. *Plauditus punctiventris*, larval fore leg. Circled area indicates villipore. Arrows indicate short setae of femur and large setae on ventral edge of tibia and tarsus.

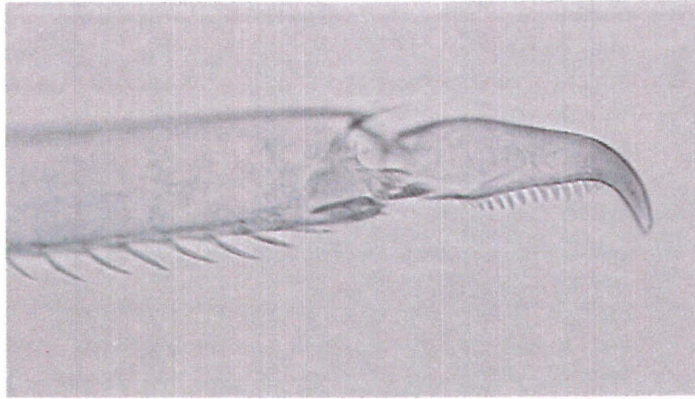


Figure 88. *Plauditus punctiventris*, larval fore tarsal claw.

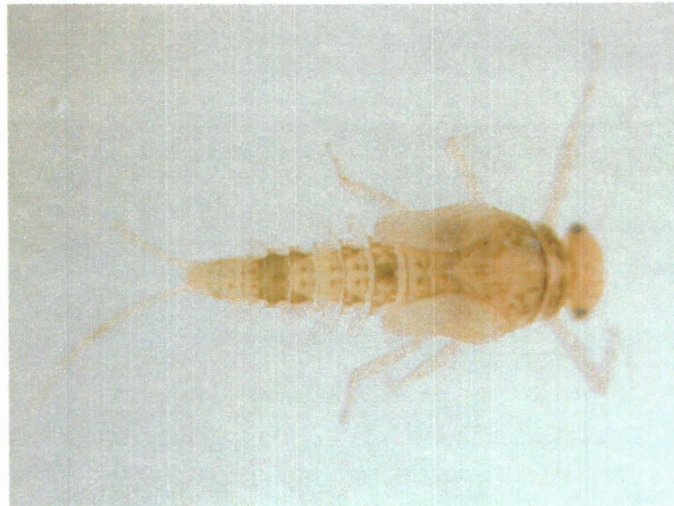


Figure 89. *Plauditus virilis*, male larval habitus.

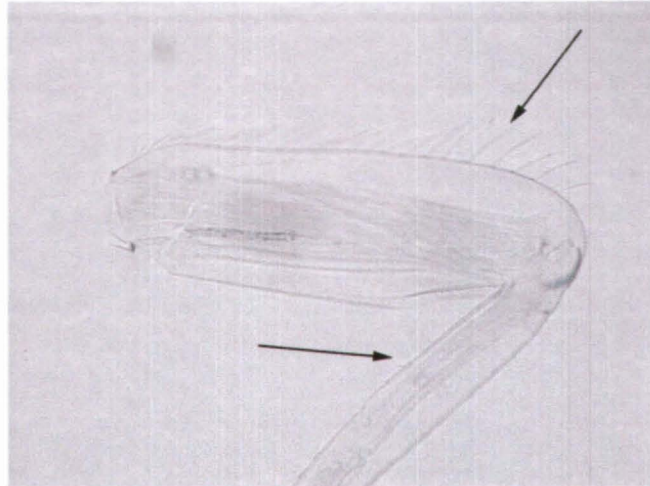


Figure 90. *Plauditus virilis*, larval fore leg. Arrows indicate long setae on femur and sparse setae on ventral edge of tibia.

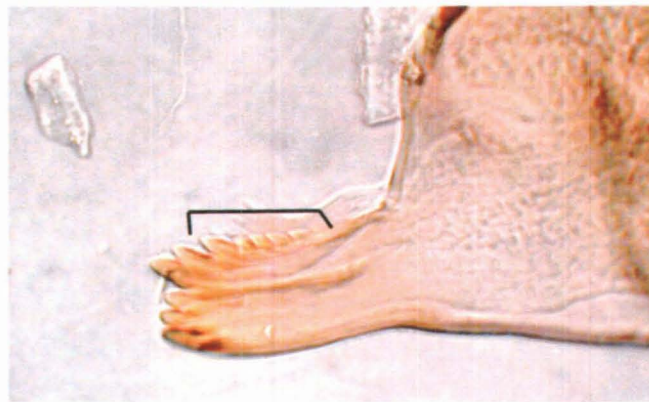


Figure 91. *Plauditus virilis*, incisors of right mandible. Bracket indicates serrate margin of inner incisor.



Figure 92. *Procloeon irrubrum*, larval abdominal sterna. Arrows indicate dark transverse lines on sterna.

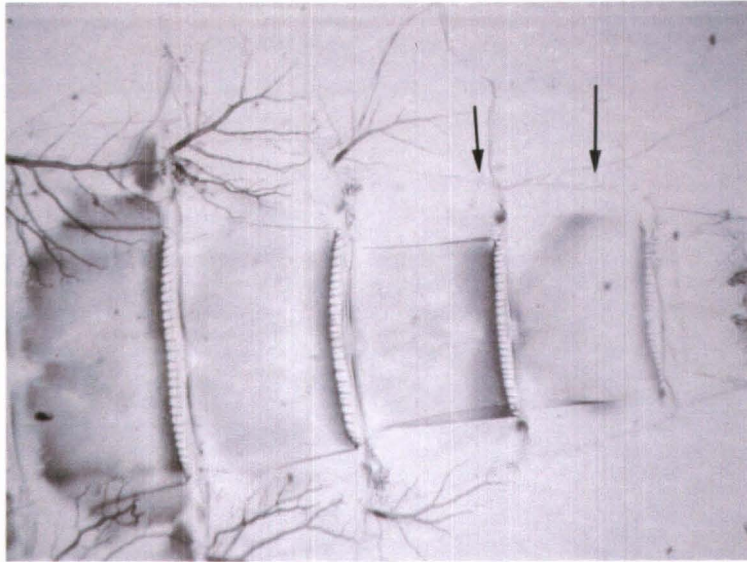


Figure 93. *Procloeon pennulatum*, larval exuviae. Arrows indicate lateral spines.

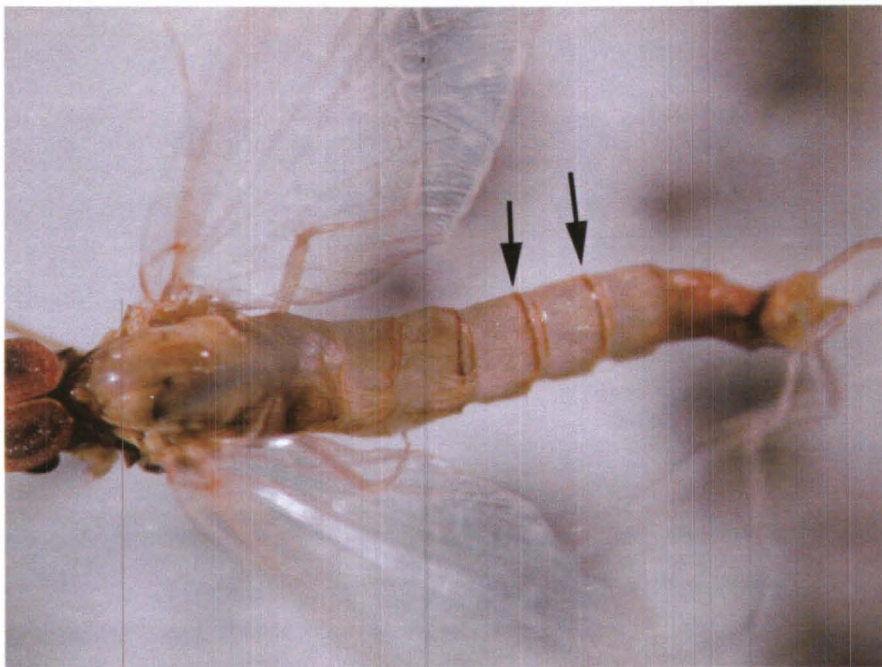


Figure 94. *Procloeon pennulatum*, dried male imago. Arrows indicate dark red posterior margins of abdominal terga.

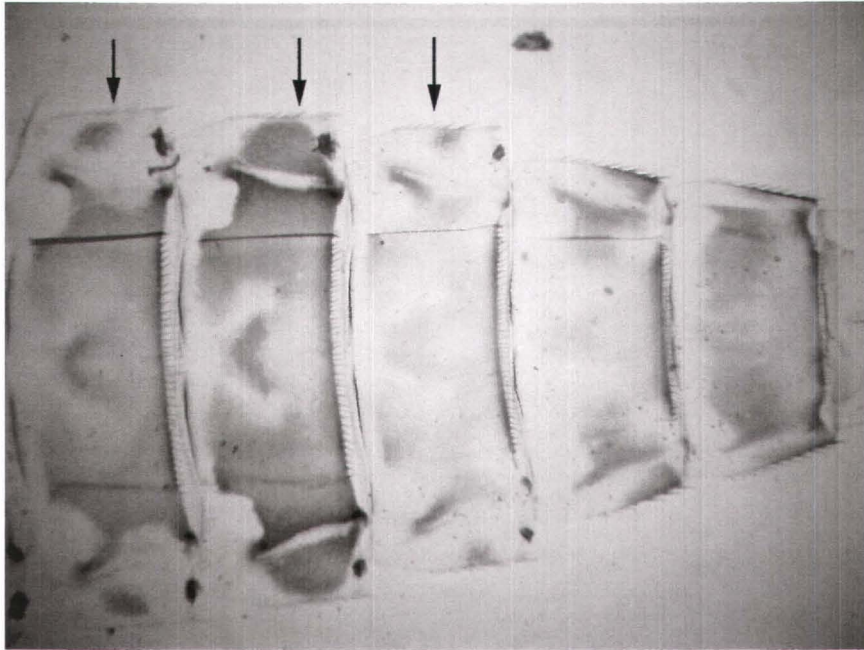


Figure 95. *Procloeon quaesitum*, abdominal terga of larval exuviae. Arrows indicate lateral spines.

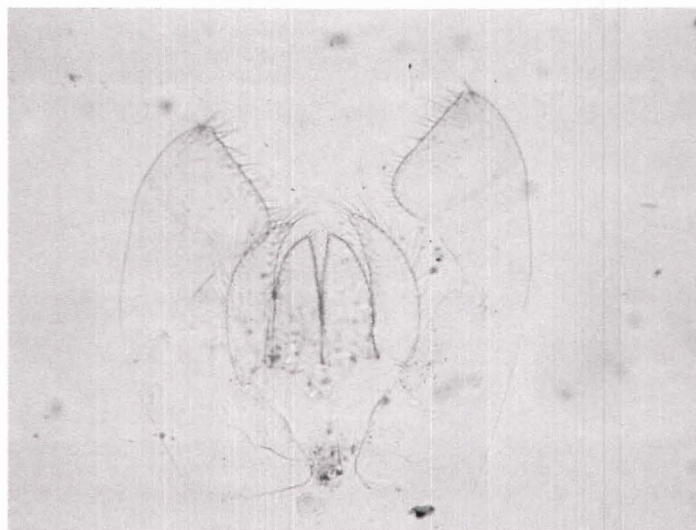


Figure 96. *Procloeon quaesitum*, larval labium.

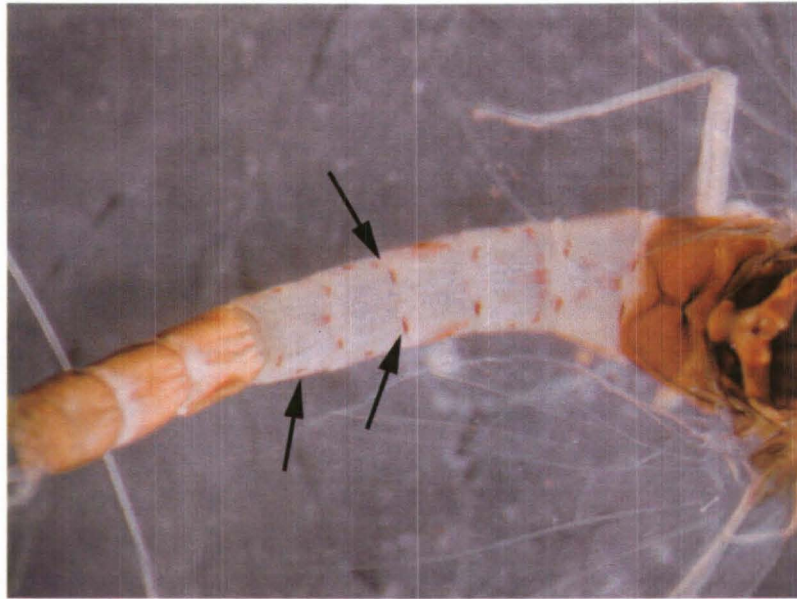


Figure 97. *Procloeon rubropictum*, abdominal terga of male imago. Arrows indicate red markings on terga 2-6. Photo of specimen from: Nova Scotia, Antigonish Co., Copper Lake 5km N of Goshen, June 25 1989, ERW.

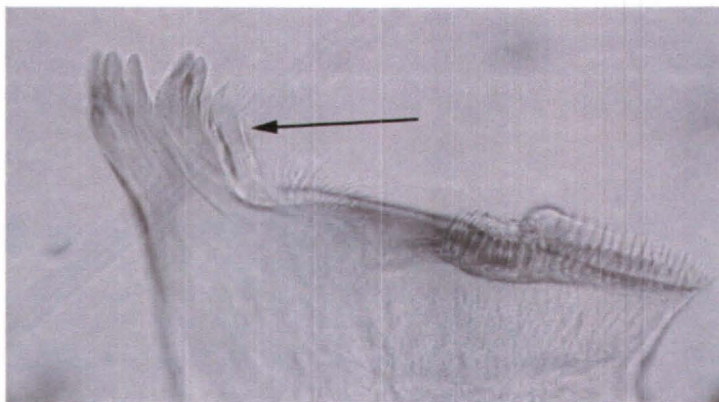


Figure 98. *Procloeon rufostriatum*, larval right mandible. Arrow indicates robust prostheca.

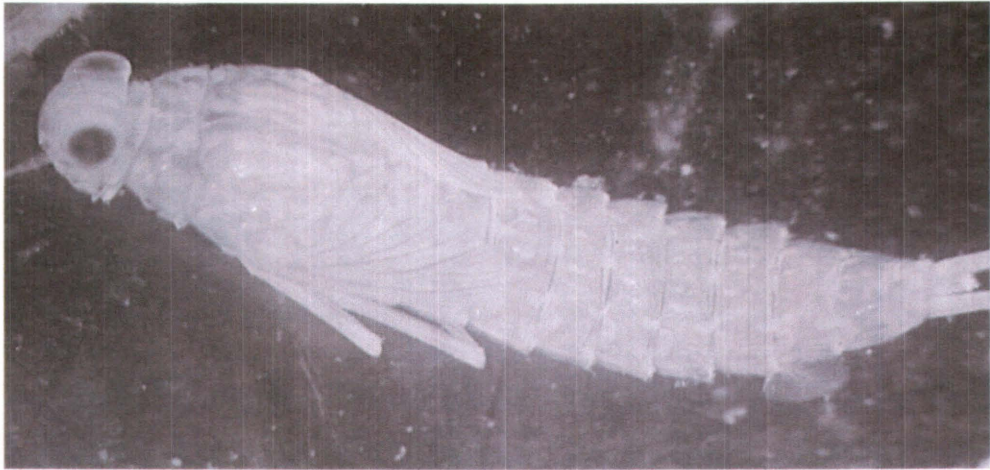


Figure 99. *Procloeon simplex*, larval habitus.



Figure 100. *Procloeon sp. 1*, anterior abdominal terga and thorax of larva.

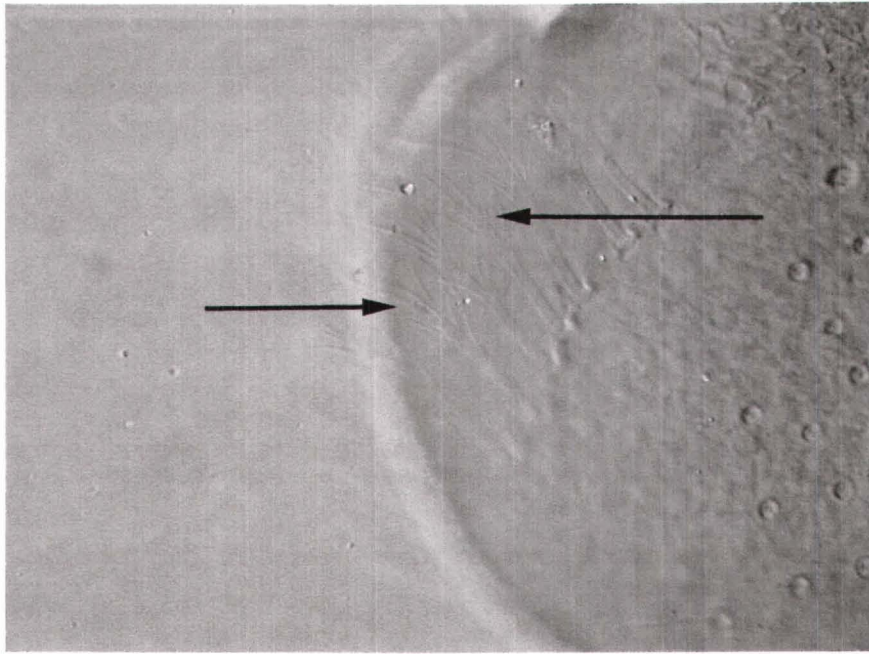


Figure 101. *Pseudocloeon dardanum*, larval labrum. Arrows indicate branched submarginal setae.

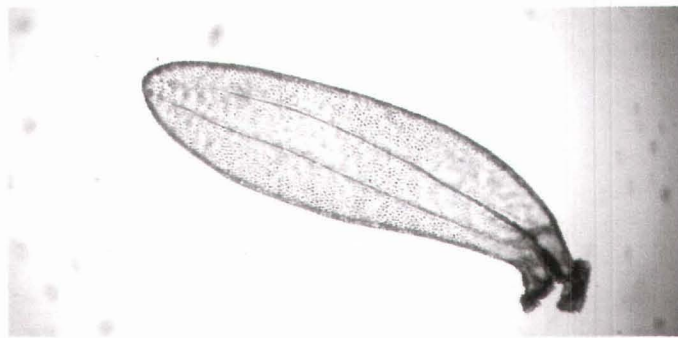


Figure 102. *Pseudocloeon dardanum*, hind wing.



Figure 103. *Pseudocloeon dardanum*, male genitalia.

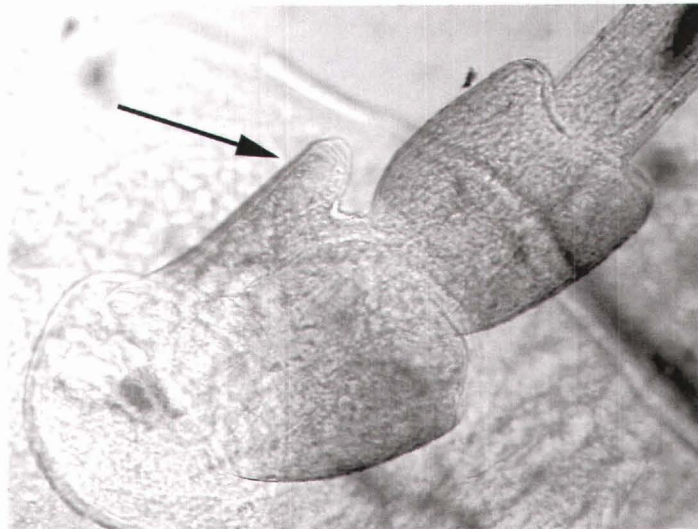


Figure 104. *Pseudocloeon propinquum*, larval antennal scape. Arrow indicates projection.

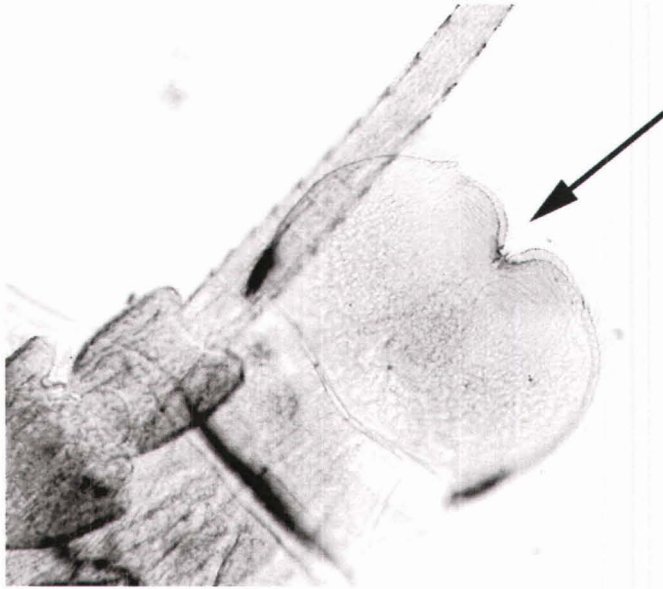


Figure 105. *Pseudocloeon propinquum*, larval labrum. Arrow indicates apical notch.

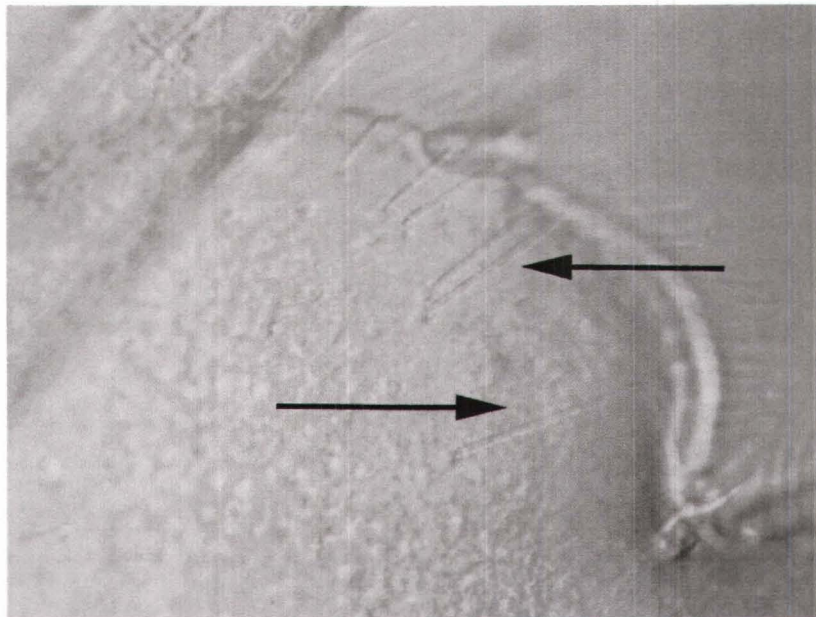


Figure 106. *Pseudocloeon propinquum*, larval labrum. Arrows indicate simple submarginal setae.



Figure 107. *Pseudocloeon propinquum*, larval maxilla. Arrow indicates subapical excavation.

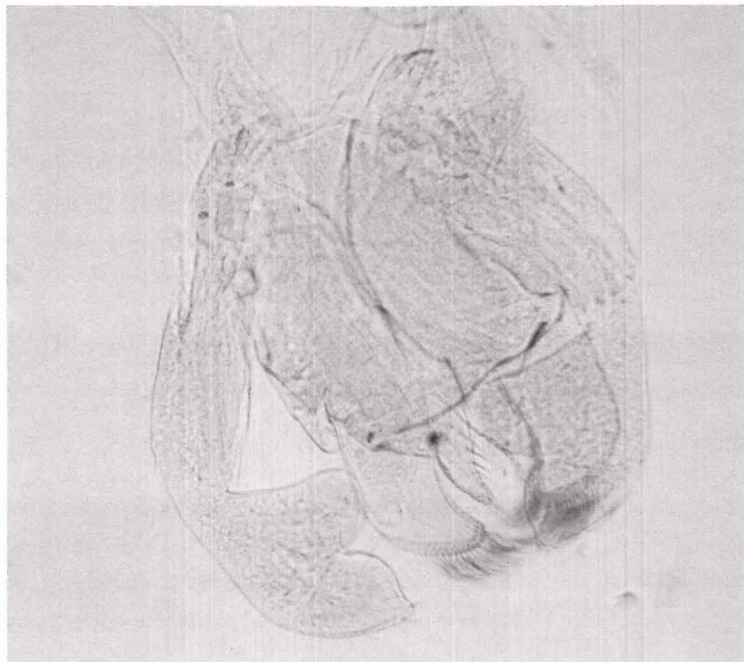


Figure 108. *Pseudocloeon propinquum*, larval labium.

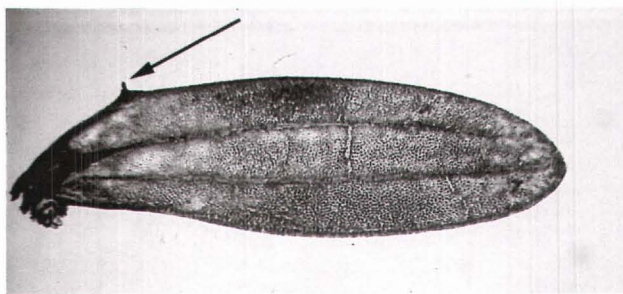


Figure 109. *Pseudocloeon propinquum*, hind wing. Arrow indicates small costal projection.

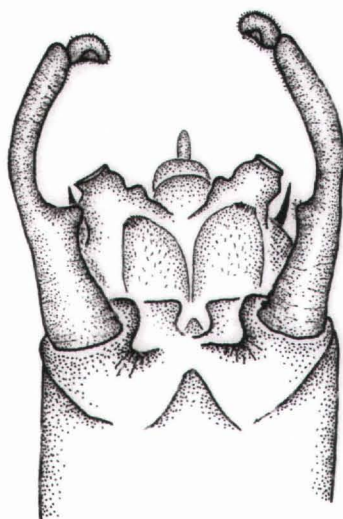


Figure 110. *Pseudocloeon propinquum*, male genitalia.

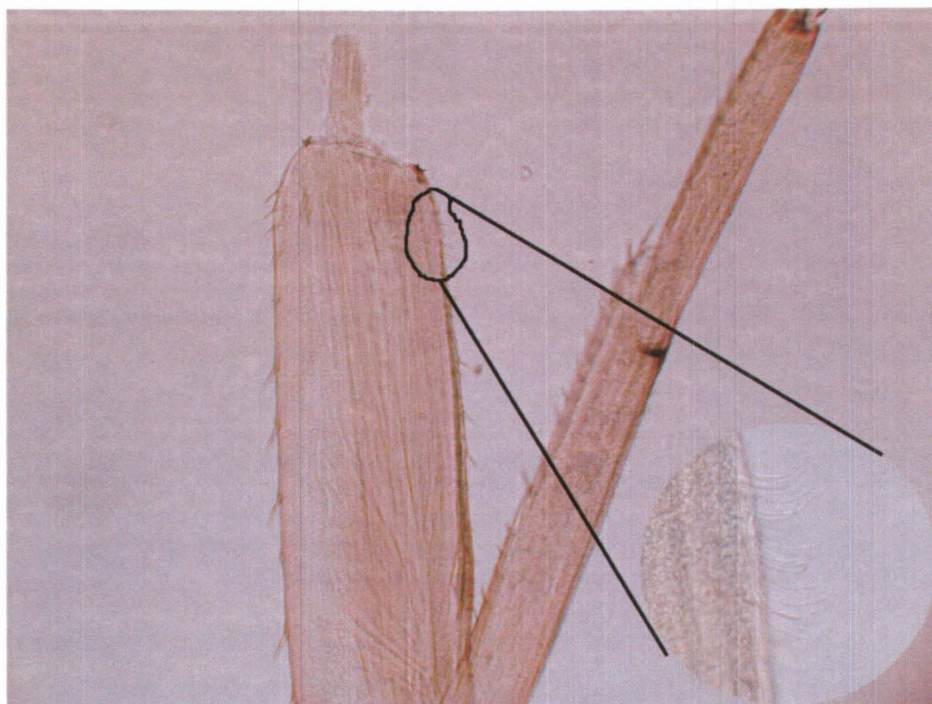


Figure 111. *Pseudocloeon propinquum*, larval middle leg. Circled area is magnified to show the patch of setae forming the villipore.



Figure 112. *Baetisca lacustris*, dorsal habitus. Arrow indicates poorly developed dorsal projections.

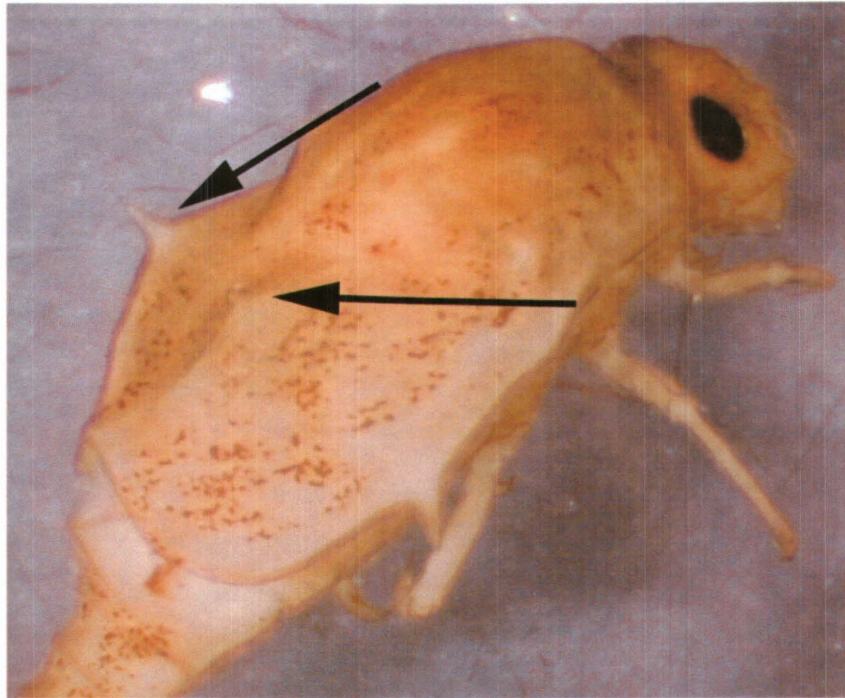


Figure 115. *Baetisca laurentina*, larva. Arrows indicate well developed dorsal projections.

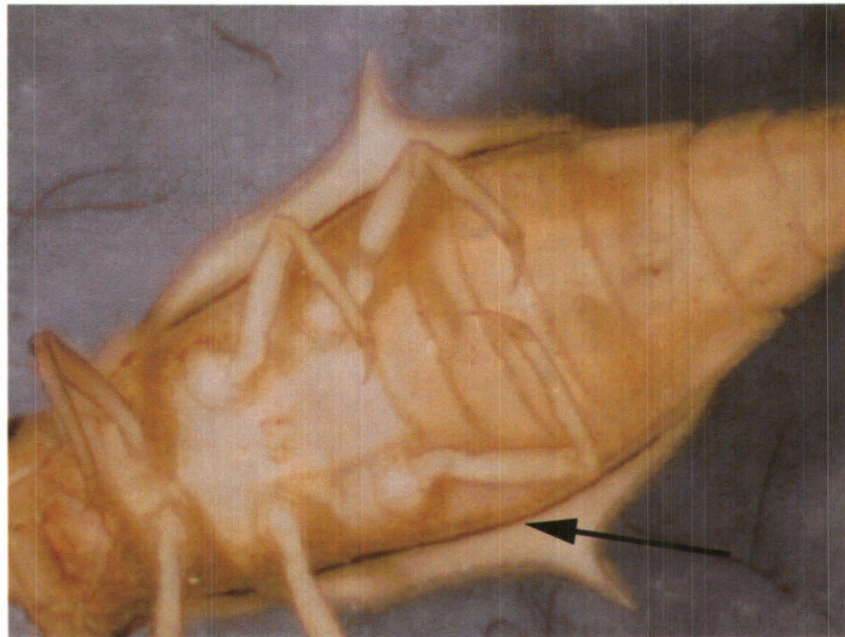


Figure 116. *Baetisca laurentina*, larva, ventral view. Arrow indicates brown margin of mesonotal shield.

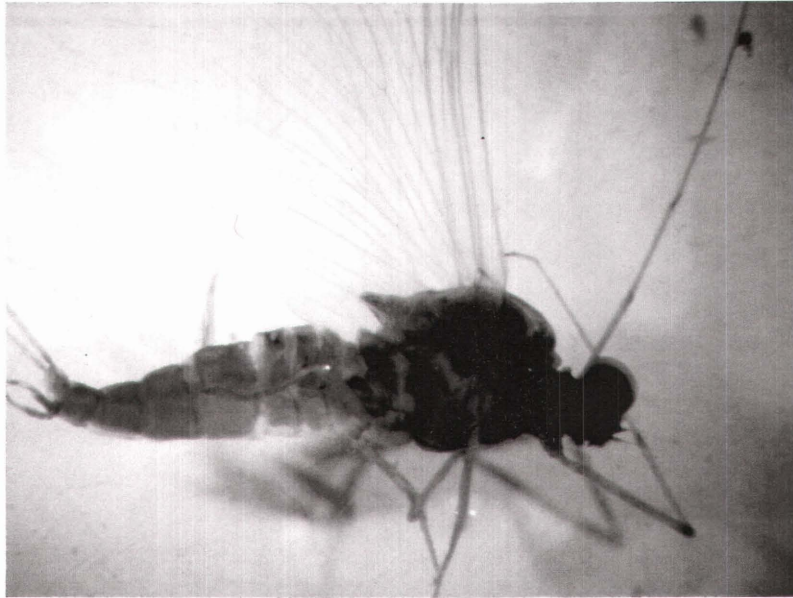


Figure 117. *Baetisca laurentina*, male imago.

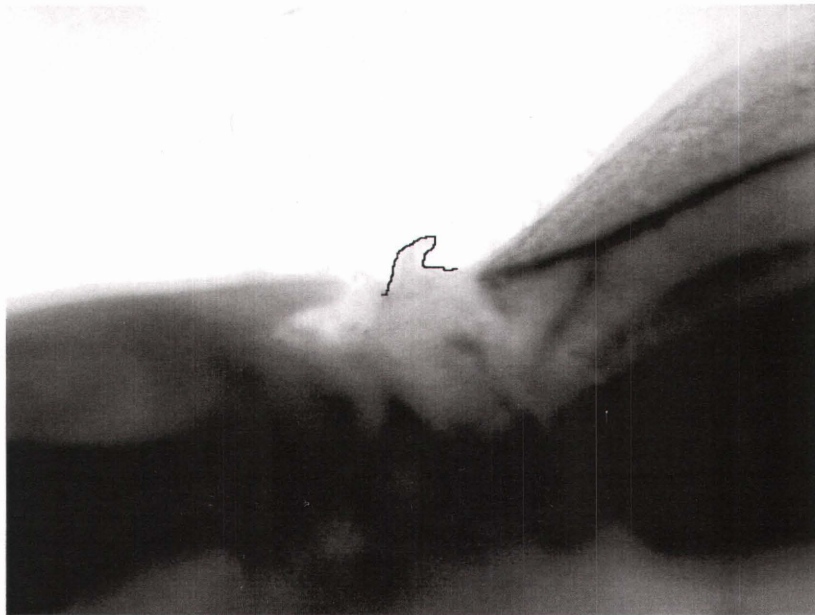


Figure 118. *Brachycercus edmundsi*, larval abdominal tergum 2. Dorsal hook over gill insertion is outlined.

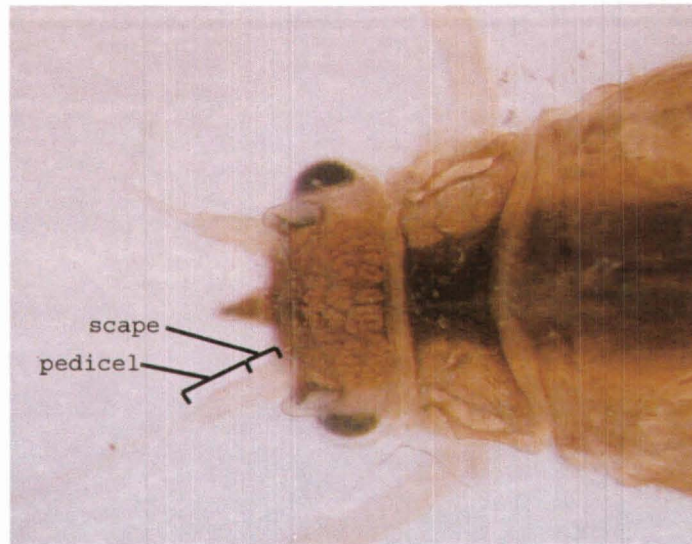


Figure 119. *Brachycercus edmundsi*, larva. Bracket indicates length of scape and pedicel.



Figure 120. *Brachycercus edmundsi*, larva, lateral view. Arrow indicates tubercle on mesosternum.

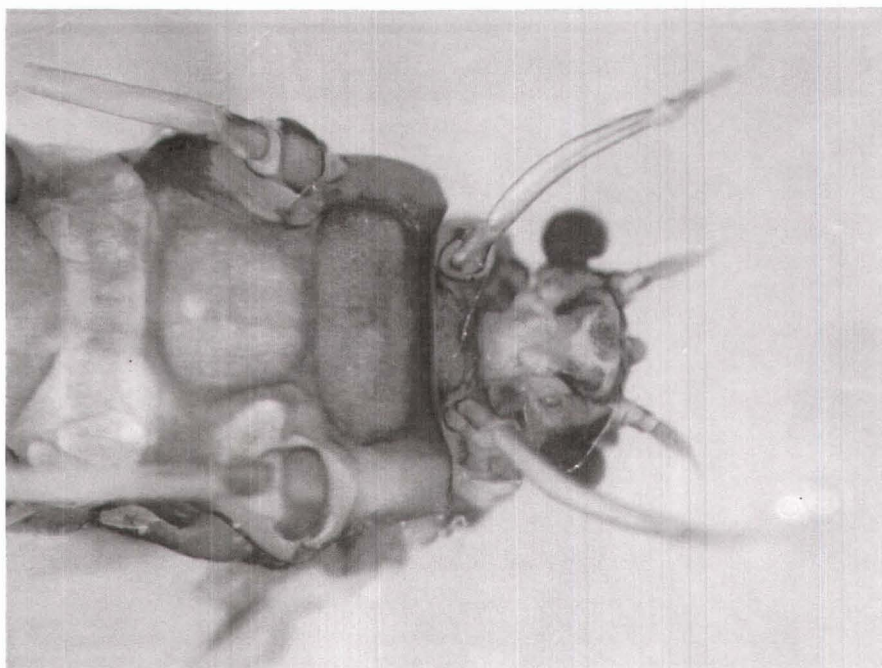


Figure 121. *Brachycercus edmundsi*, female imago, ventral view of thorax and head.

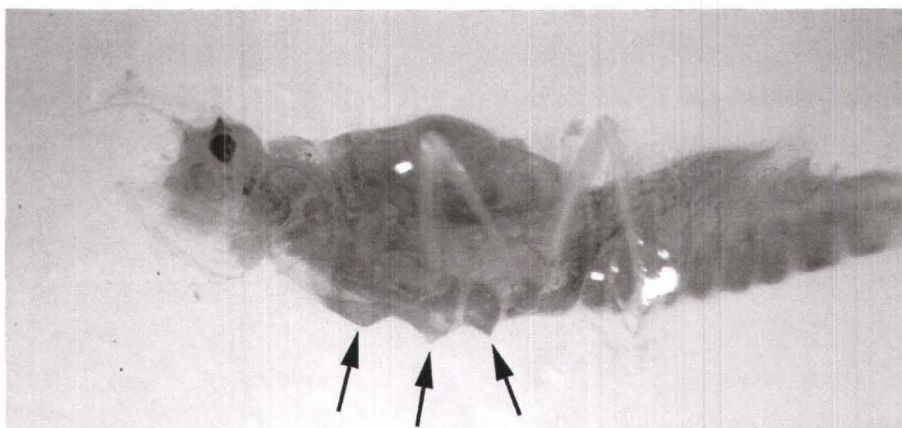


Figure 122. *Brachycercus prudens*, larva, lateral view. Arrows indicate tubercles on meso- and meta-sterna.

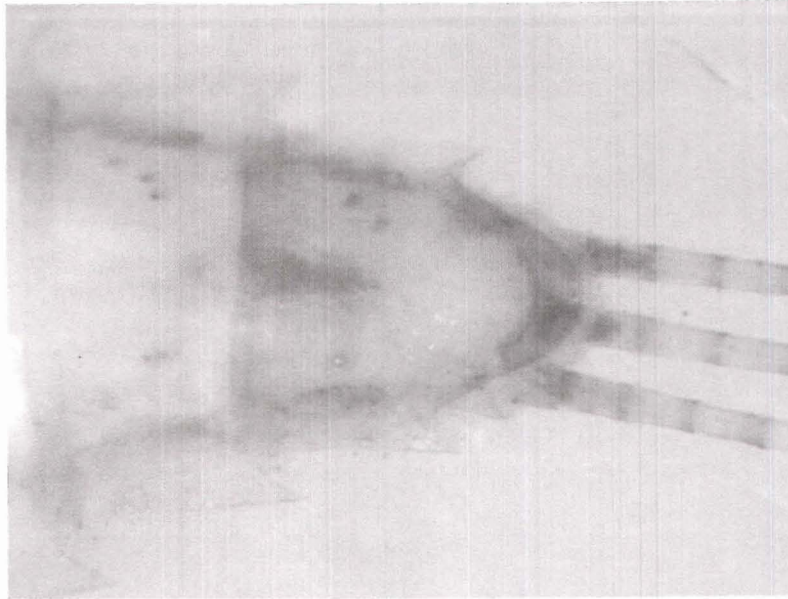


Figure 123. *Caenis amica*, larval sternum 9.

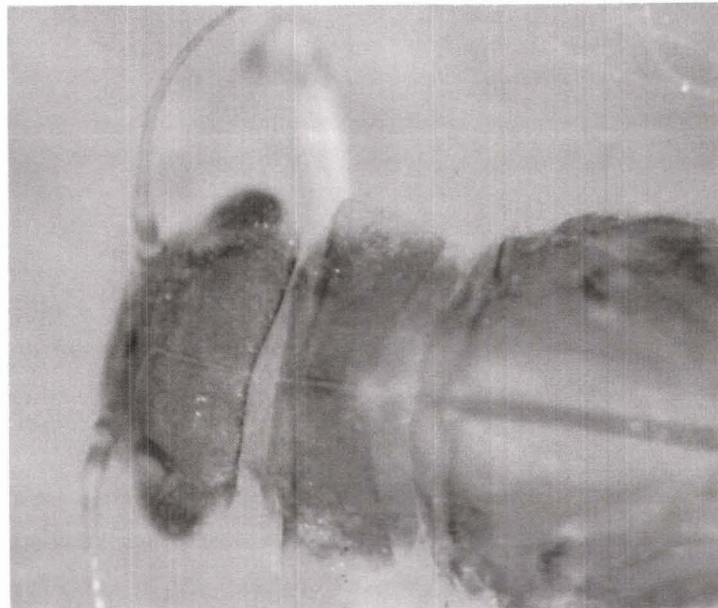


Figure 124. *Caenis amica*, head and pronotum of larva.

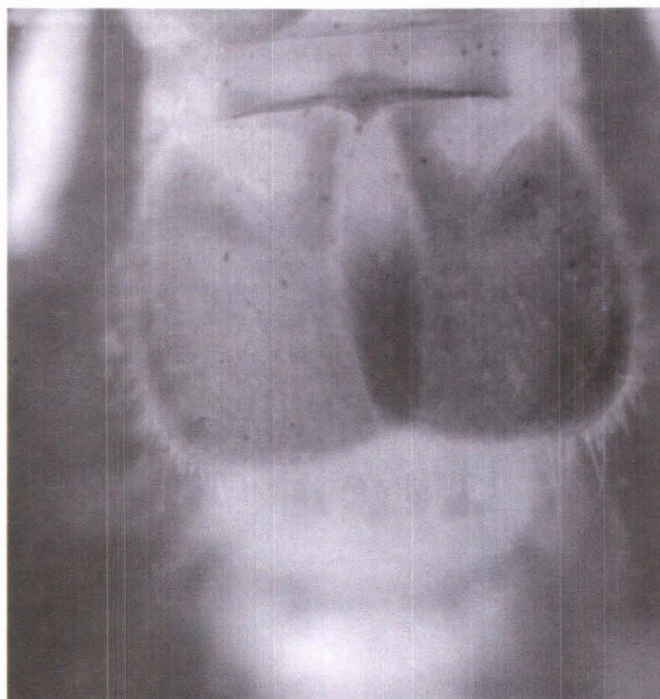


Figure 125. *Caenis hiliaris*, larval abdominal segment 2.

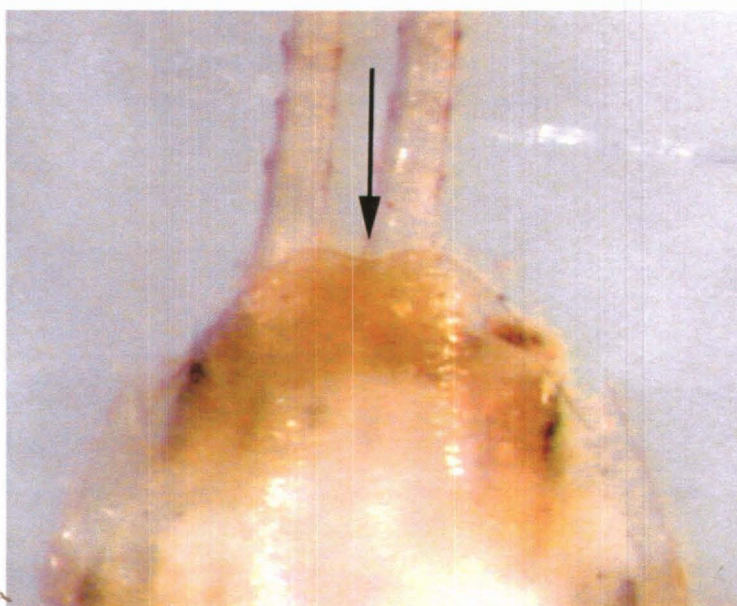


Figure 126. *Caenis hiliaris*, larval sternum 9. Arrow indicates notch in posterior margin.



Figure 127. *Caenis hilaris*, male imago, dorsal aspect.

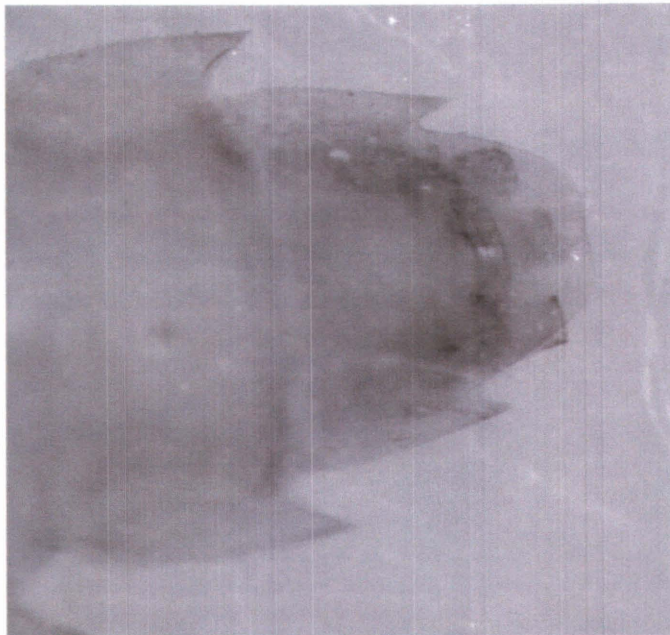


Figure 128. *Caenis latipennis*, larval sternum 9.

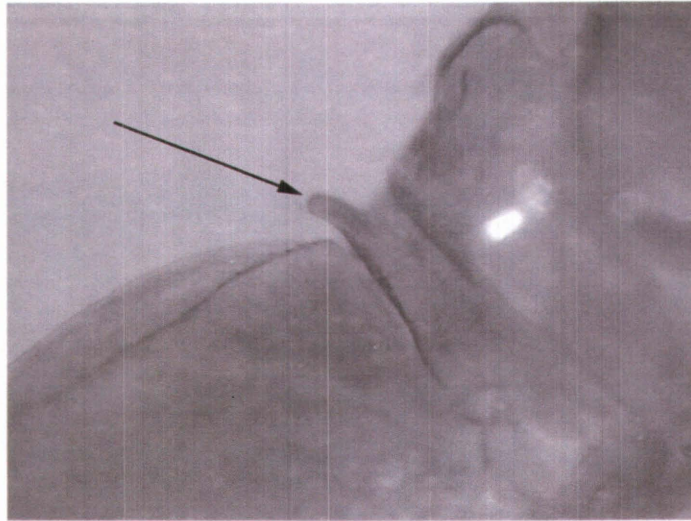


Figure 129. *Caenis latipennis*, larva, lateral view of posteriomedian projection of abdominal tergum 2.



Figure 130. *Caenis latipennis*, male imago, head and thorax.

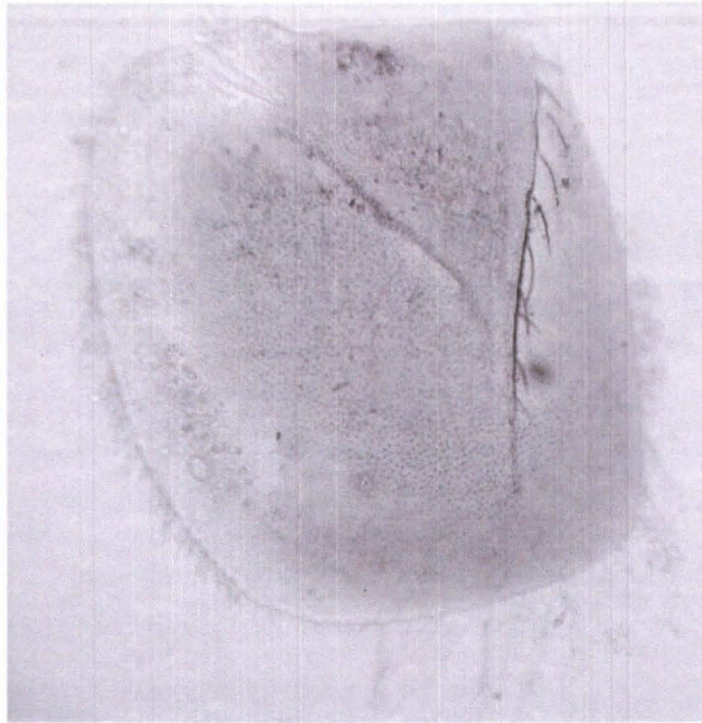


Figure 131. *Caenis tardata*, larval gill 2.

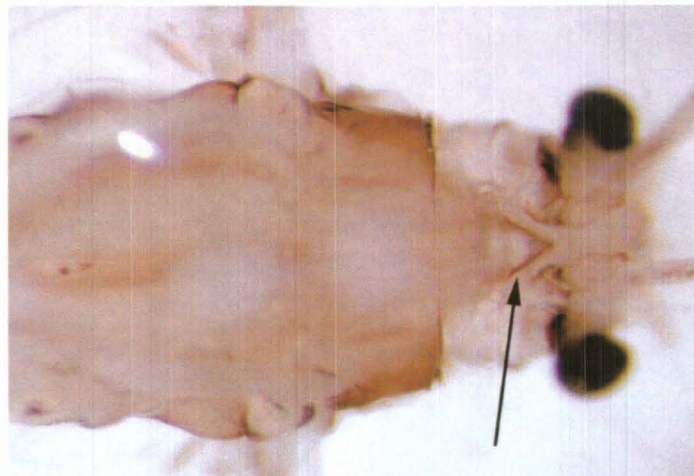


Figure 132. *Caenis tardata*, male imago, ventral view. Arrow indicates triangular prosternum.

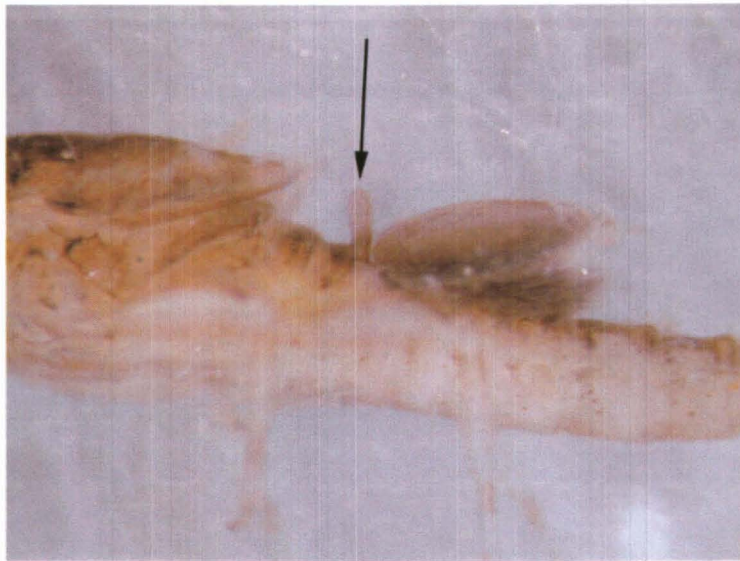


Figure 133. *Caenis youngi*, lateral view of larva. Arrow indicates projection of tergum 2.



Figure 134. *Caenis youngi*, dorsal view of larva.

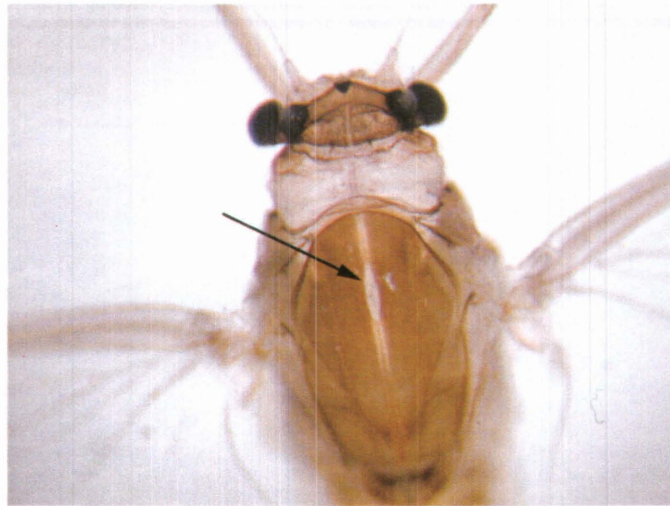


Figure 135. *Caenis youngi*, dorsal view of male imago. Arrow indicates ommatidium.

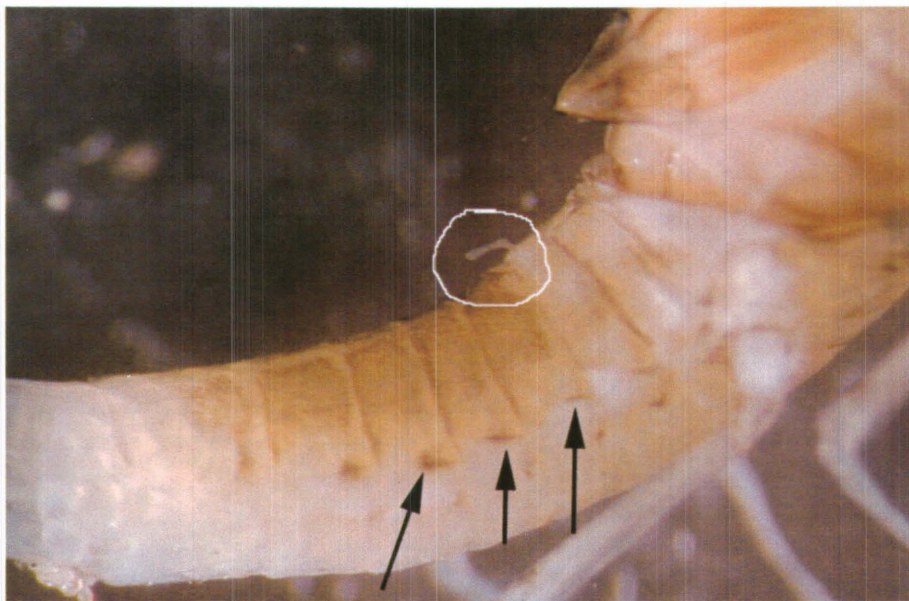


Figure 136. *Caenis youngi*, imago. Circled area indicates fleshy, finger-like lobe on segment 2. Arrow indicate black pleural dots.

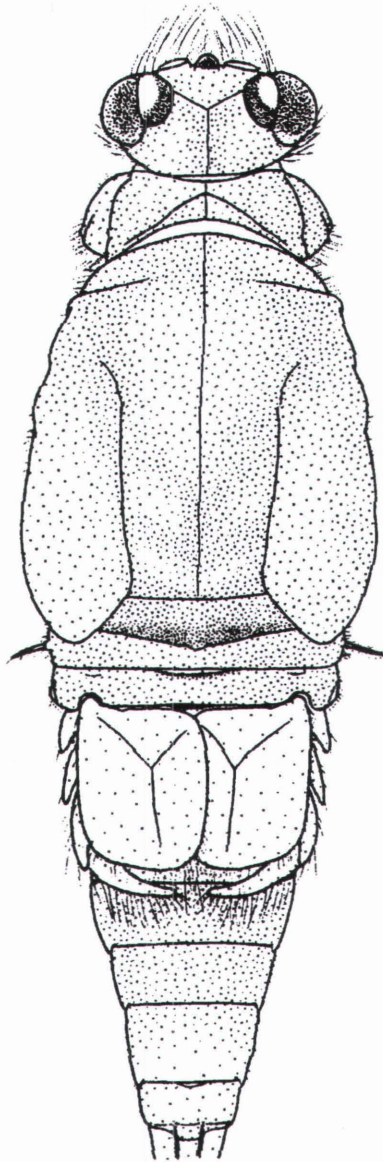


Figure 137 *Cercobrachys cree*, larval habitus. Drawing courtesy of L. Sun, Purdue University, IN.

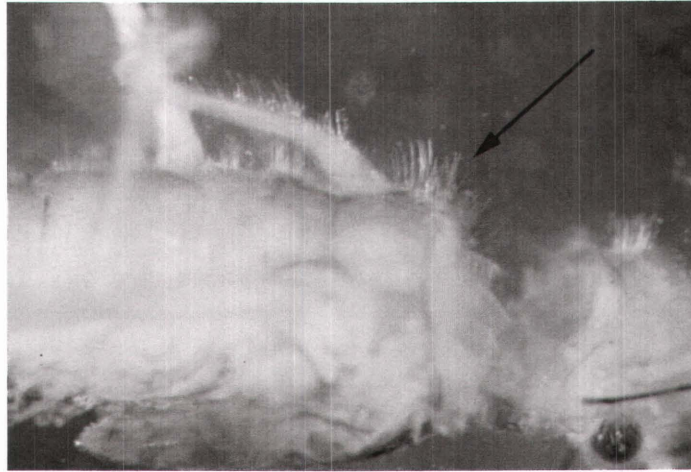


Figure 138. *Cercobrachys cree* larva, lateral view. Arrow indicates fringe of setae on mesosternum. Head and pronotum are partially removed to emphasize setae.

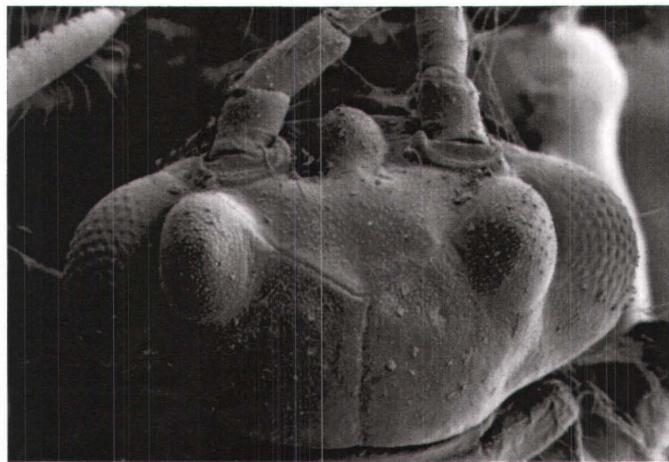


Figure 139. *Cercobrachys cree*, dorsal view of head capsule. SEM photo courtesy of L. Sun, Purdue University, IN.

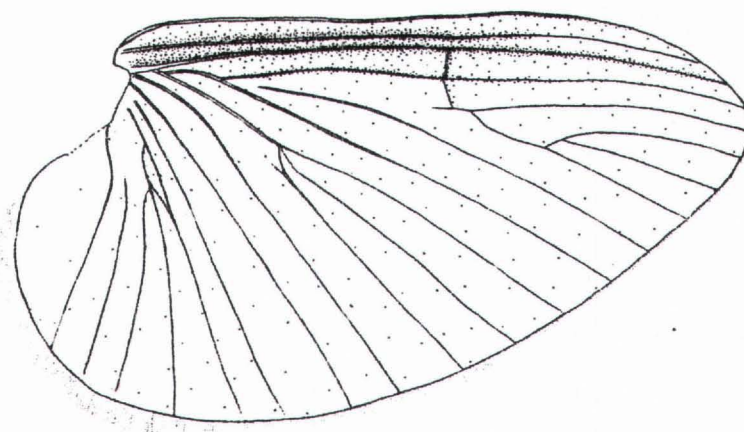


Figure 140. *Cercobrachys cree*, fore wing. Drawing courtesy of L. Sun, Purdue University, IN.

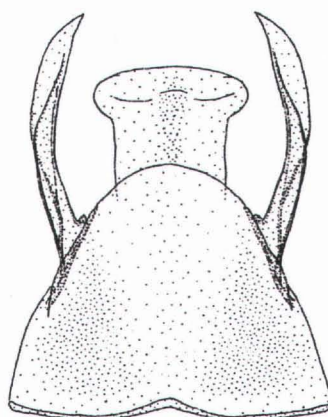


Figure 141. *Cercobrachys cree*, male genitalia. Drawing courtesy of L. Sun, Purdue University, IN.



Figure 142. *Dannella simplex*, larval tarsal claw.

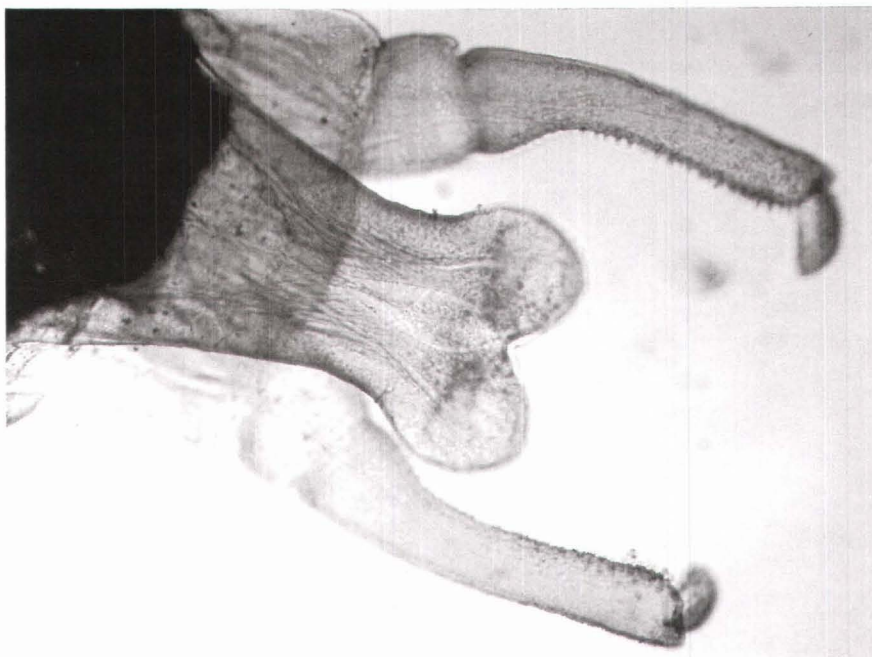


Figure 143. *Dannella simplex*, male genitalia.

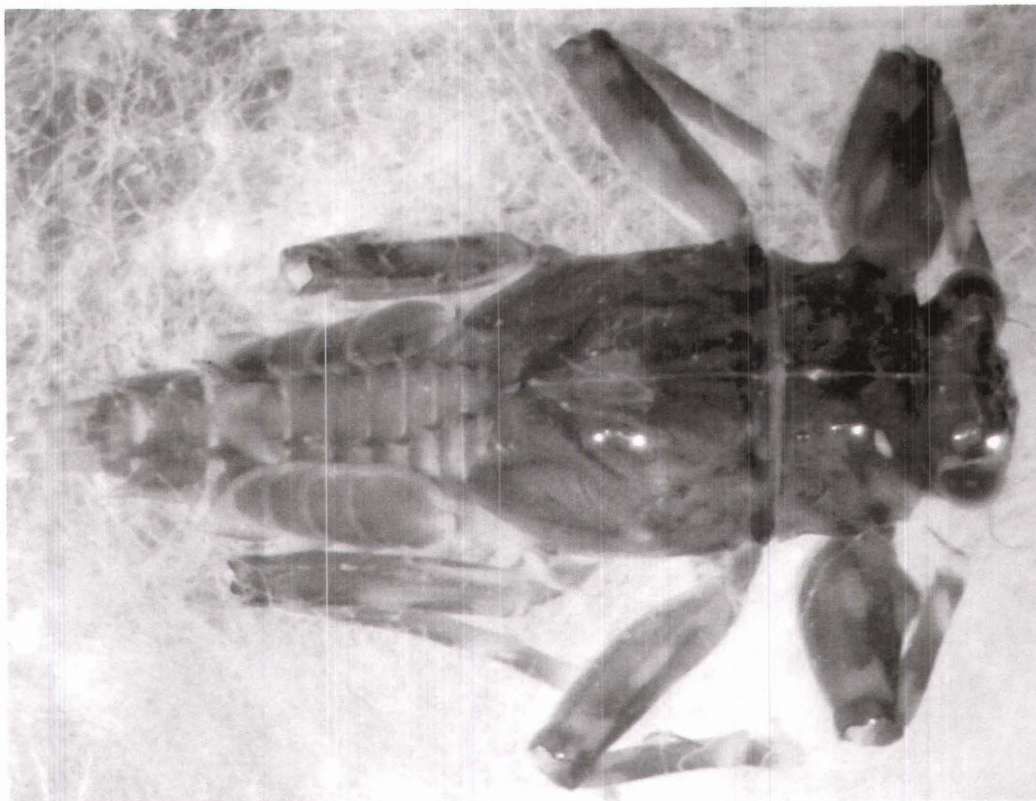


Figure 144. *Drunella granis*, dorsal habitus of larva.



Figure 145. *Drunella granis*, lateral view of larva.



Figure 146. *Drunella granis*, male genitalia.

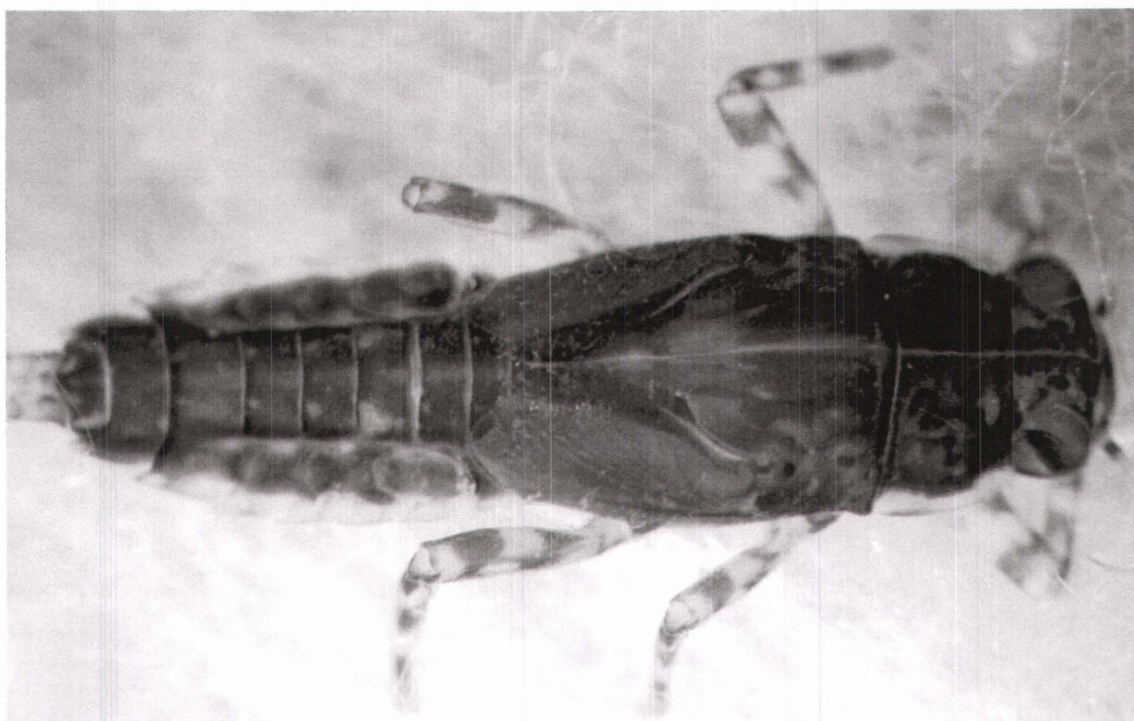


Figure 147. *Ephemerella inermis*, dorsal larval habitus.



Figure 148. *Ephemerella inermis*, lateral view of larva.

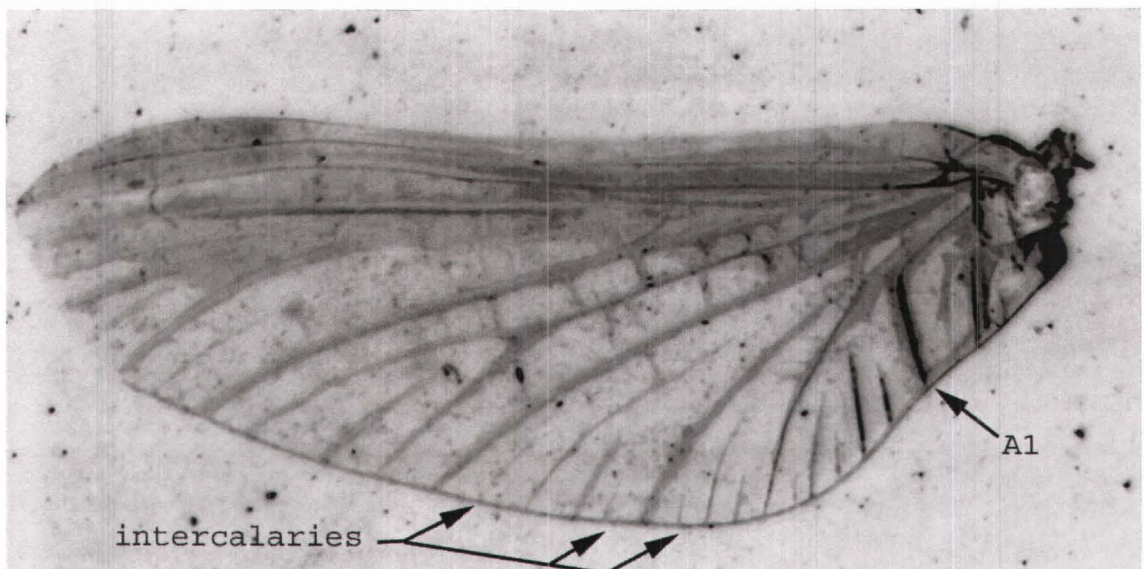


Figure 149. *Ephemerella inermis*, fore wing. Arrows indicate intercalaries and A₁. Colours are inverted to highlight veins.

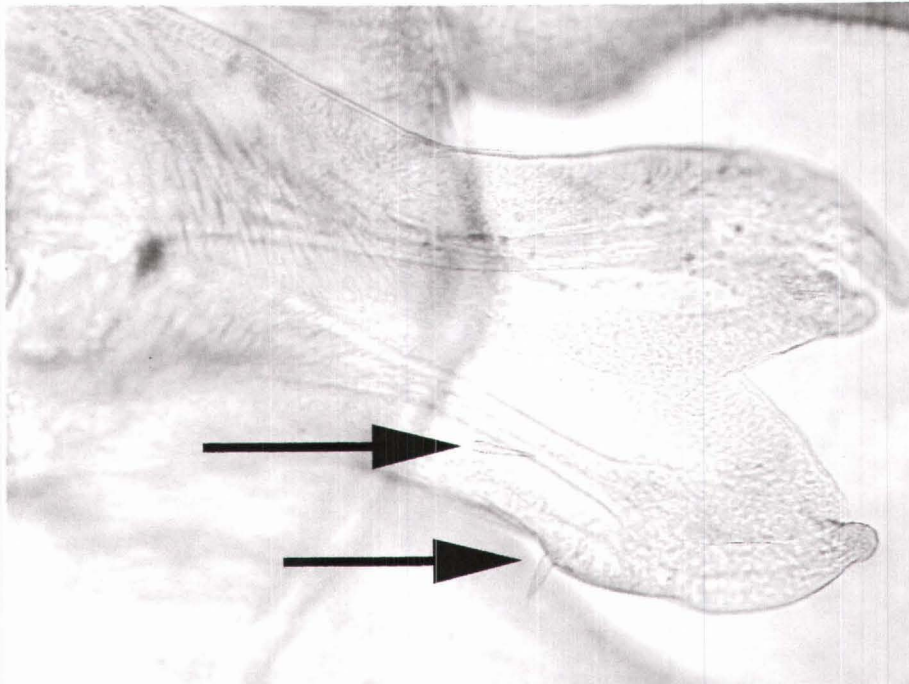


Figure 150. *Ephemerella inermis*, male penes. Arrows indicate spines.



Figure 151. *Ephemerella needhami*, dorsal larval habitus.



Figure 152. *Ephemerella needhami*, lateral view of larva.

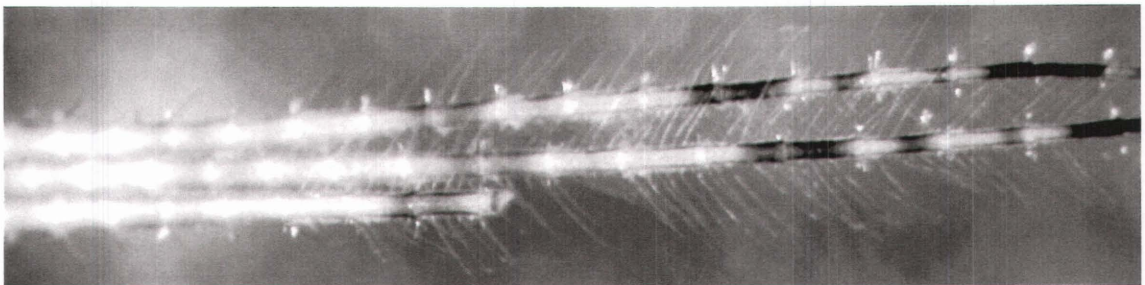


Figure 153. *Ephemerella needhami*, larval caudal filaments showing intersegmental setae.

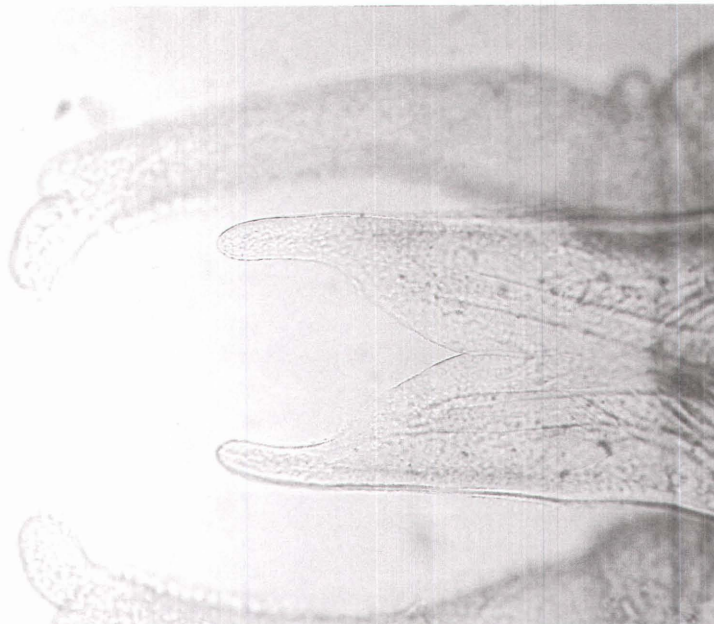


Figure 154. *Ephemerella needhami*, male genitalia.

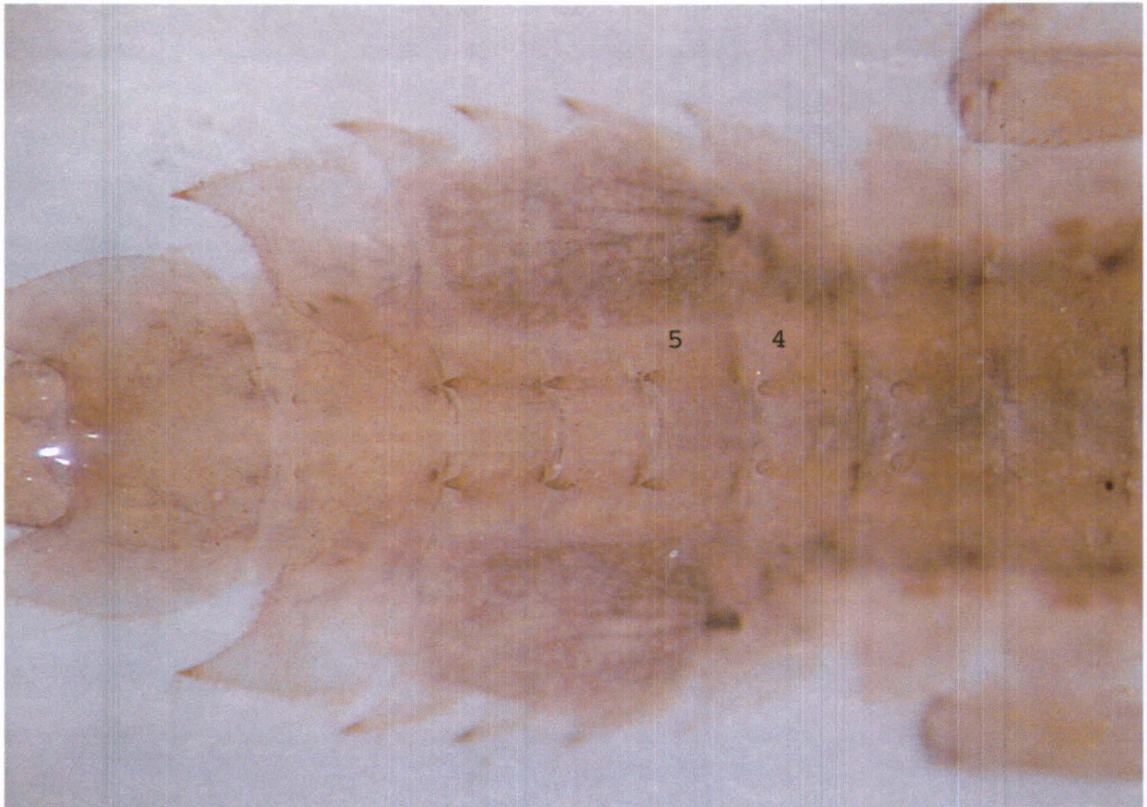


Figure 155. *Eurylophella bicolor*, dorsal view of larval abdomen. Terga 4 and 5 are indicated.



Figure 156. *Eurylophella temporalis*, dorsal view of larval abdomen. Terga 4 and 5 are indicated.

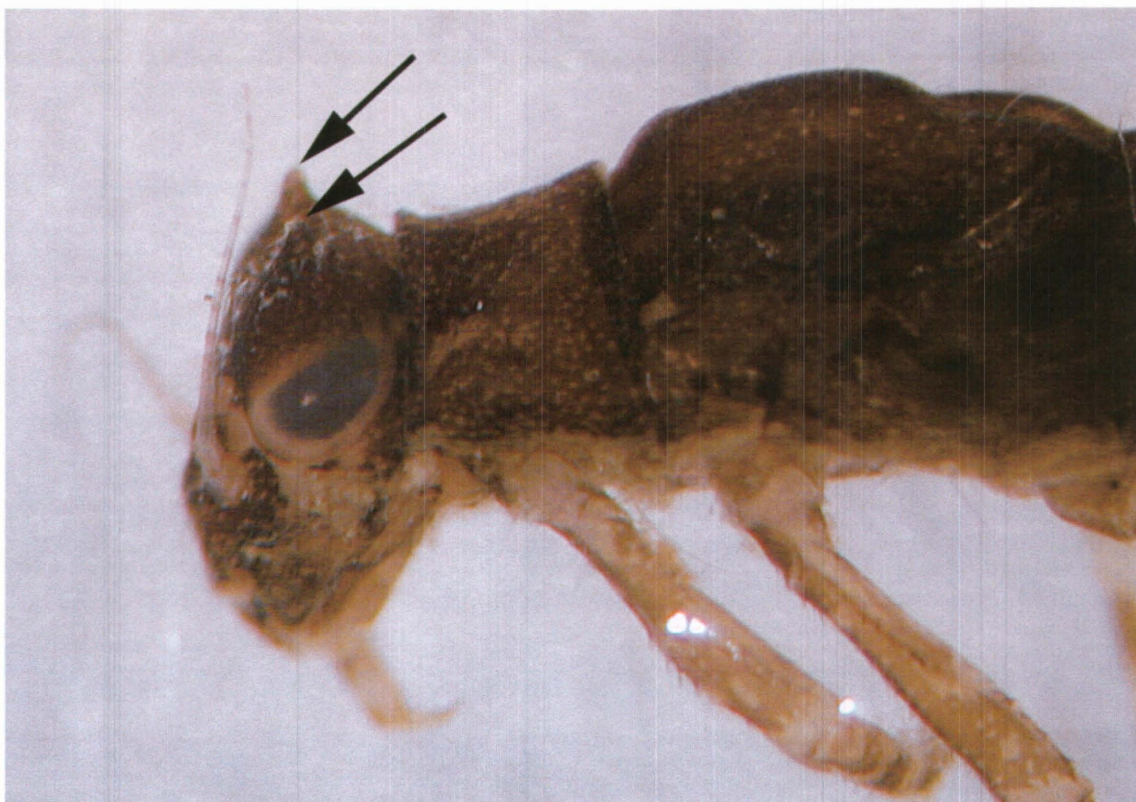


Figure 157. *Eurylophella temporalis*, lateral view of larval head and thorax. Arrows indicate occipital tubercles.

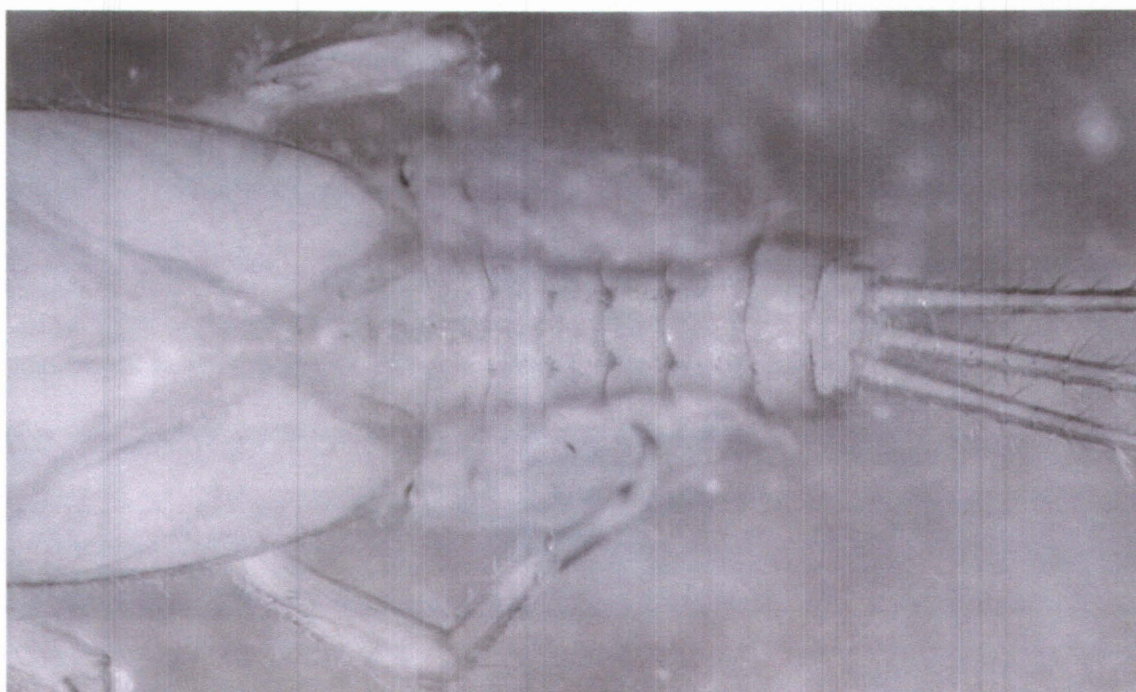


Figure 158. *Serratella serrata*, dorsal view of abdomen.

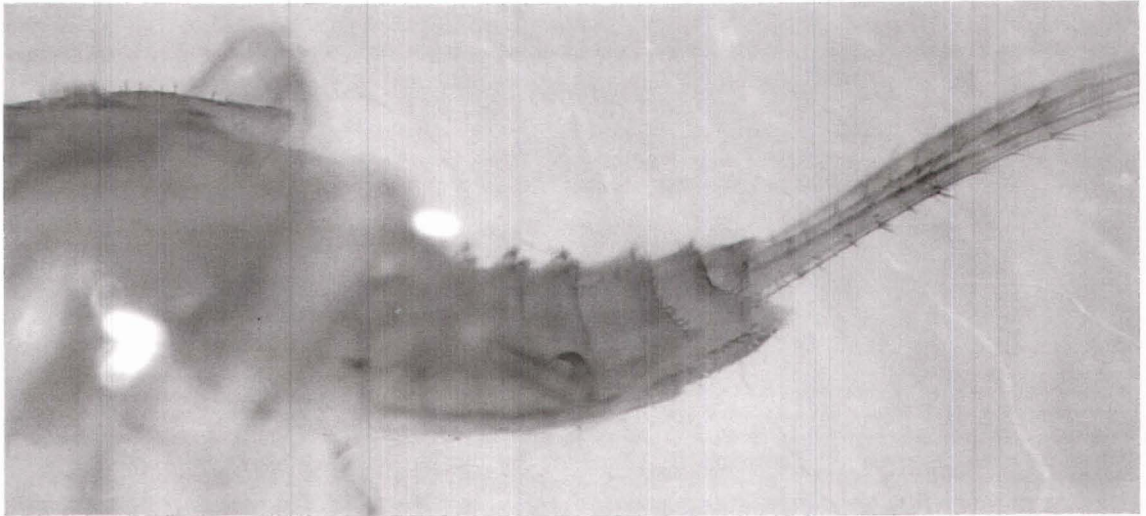


Figure 159. *Serratella serrata*, lateral view of larval abdomen.

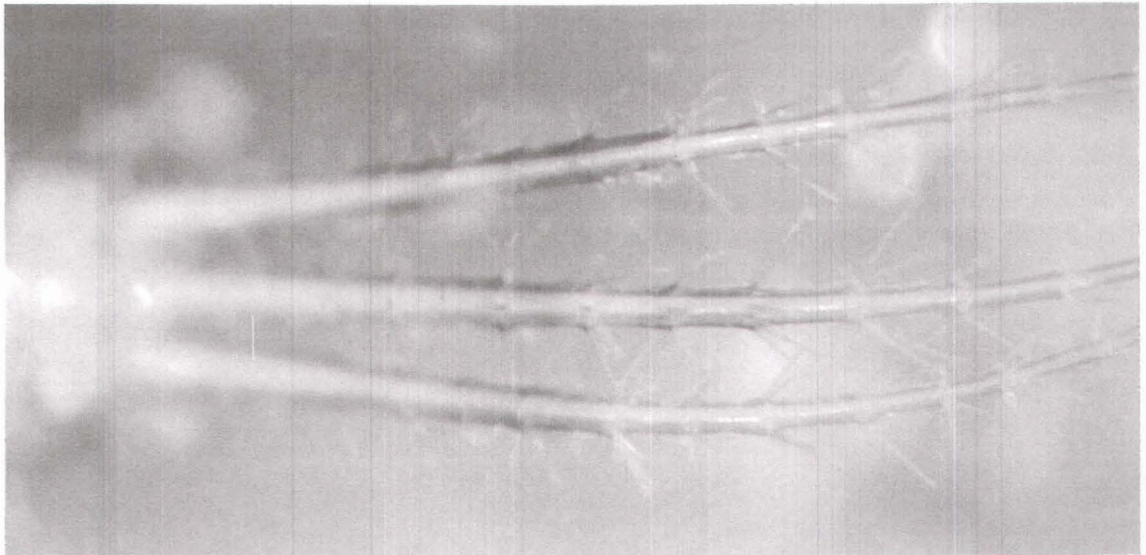


Figure 160. *Serratella serrata*, larval caudal filaments.

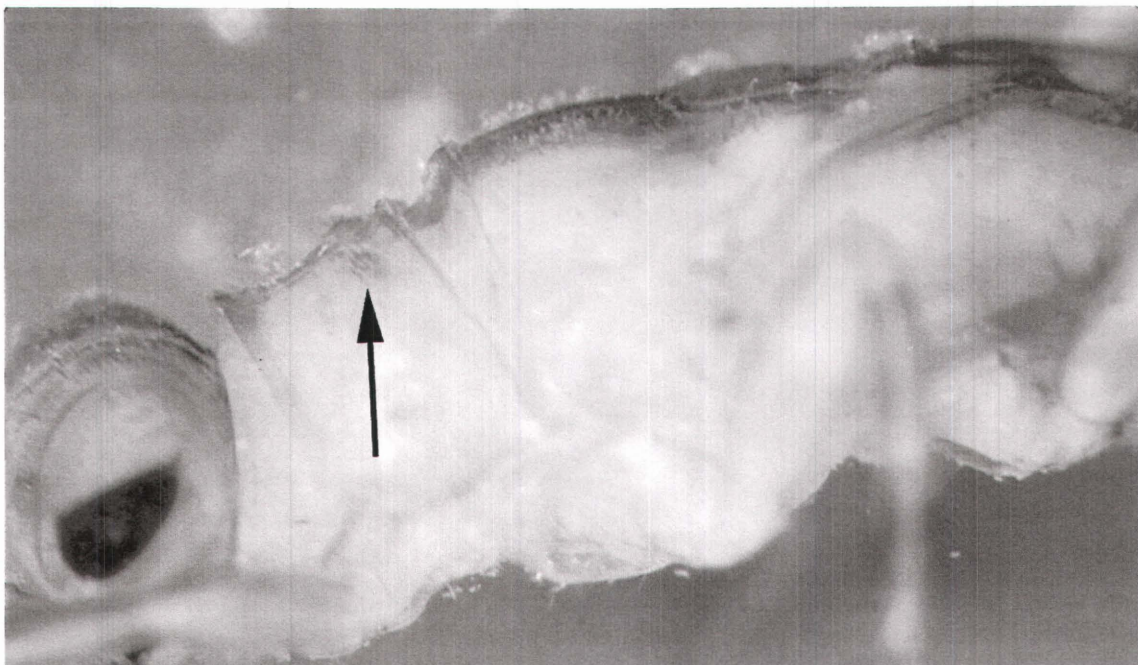


Figure 161. *Serratella serrata*, lateral view of larval thorax. Arrow indicates small tubercle present on prothorax.

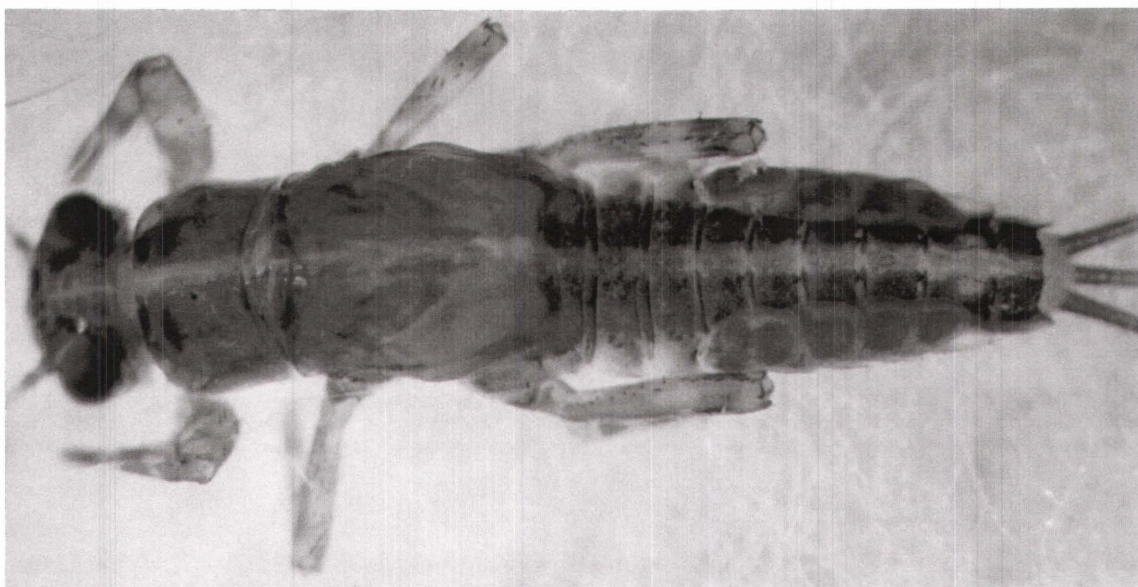


Figure 162. *Serratella tibialis*, dorsal habitus of larva.



Figure 163. *Serratella tibialis*, lateral view of larva.

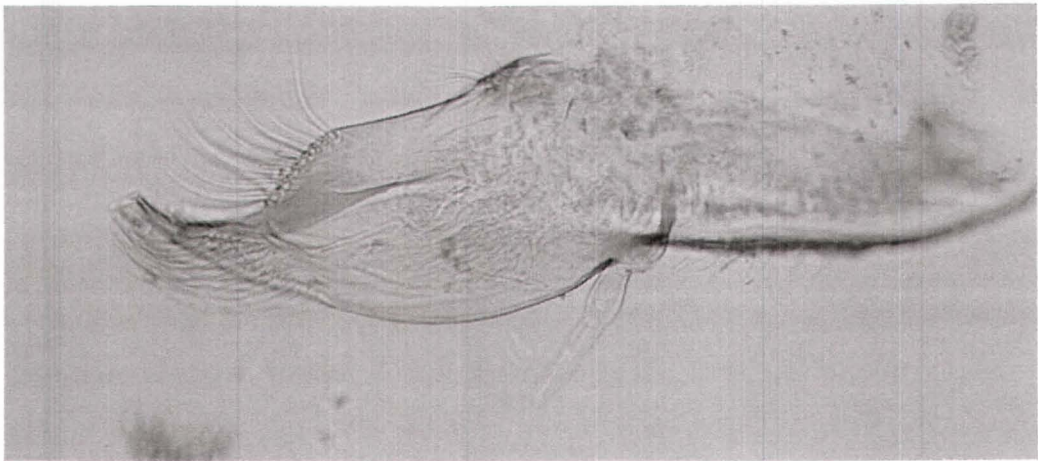


Figure 164. *Serratella tibialis*, larval maxilla.



Figure 165. *Ephemera simulans*, lateral view of laral abdomen and hind leg. Arrow indicates pointed process on hind tibia.



Figure 166. *Ephemera simulans*, dorsal view of larval head.



Figure 167. *Ephemera simulans*, lateral view of larval head.

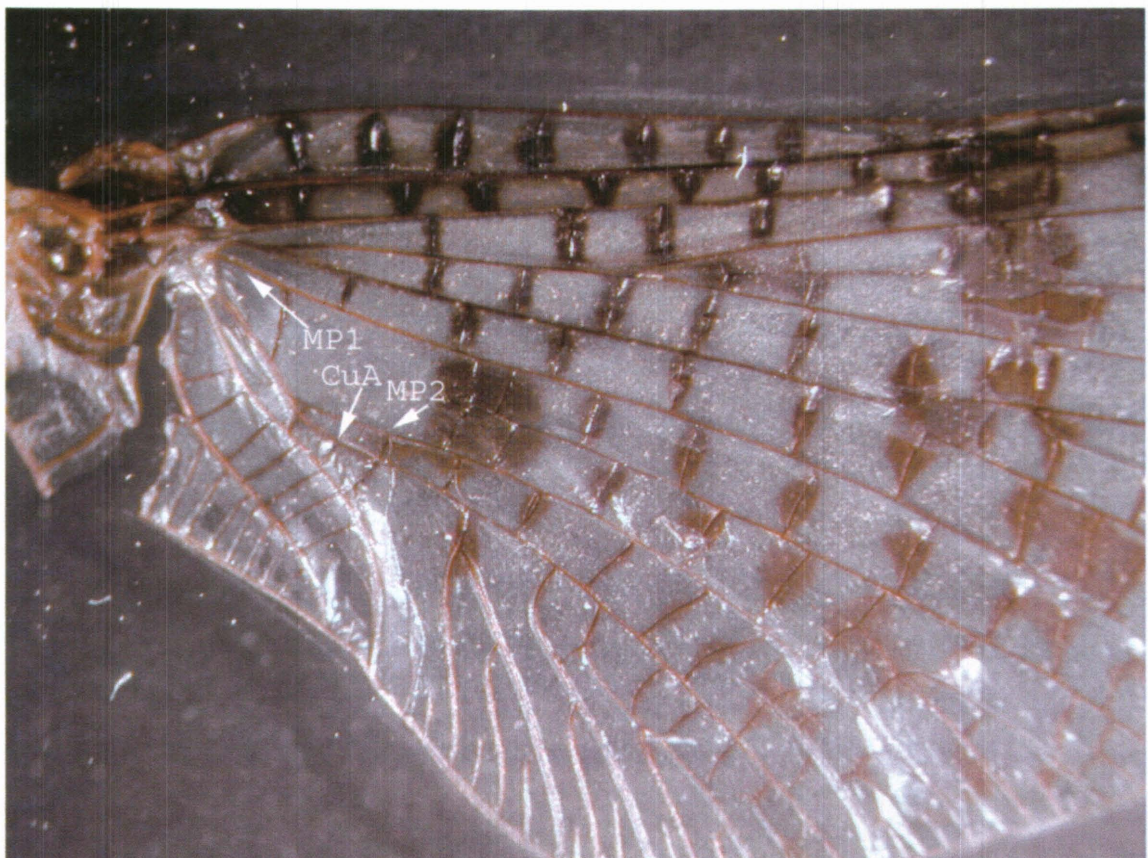


Figure 168. *Ephemera simulans*, fore wing. Veins MP₁, CuA, and MP₂ are indicated by arrows.



Figure 169. *Ephemera simulans*, male genitalia.

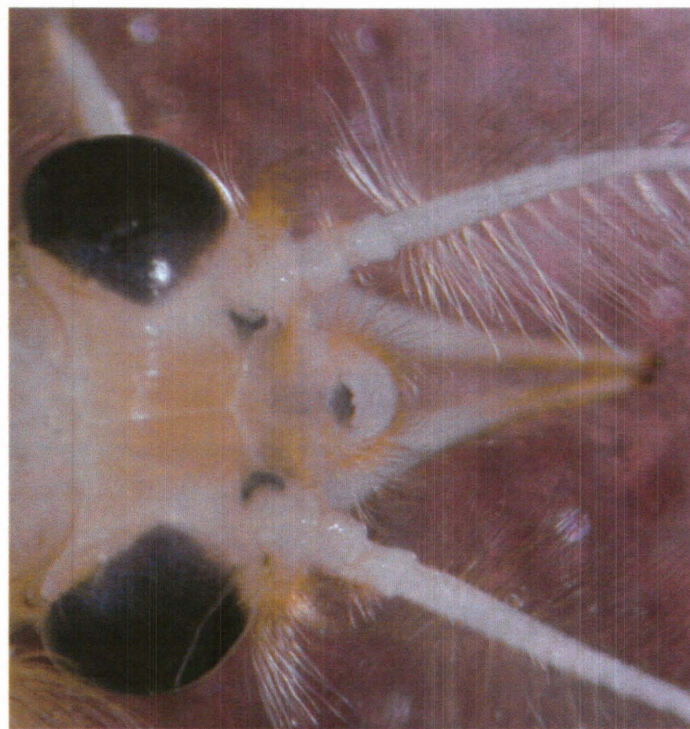


Figure 170. *Hexagenia limbata*, dorsal view of larval head.

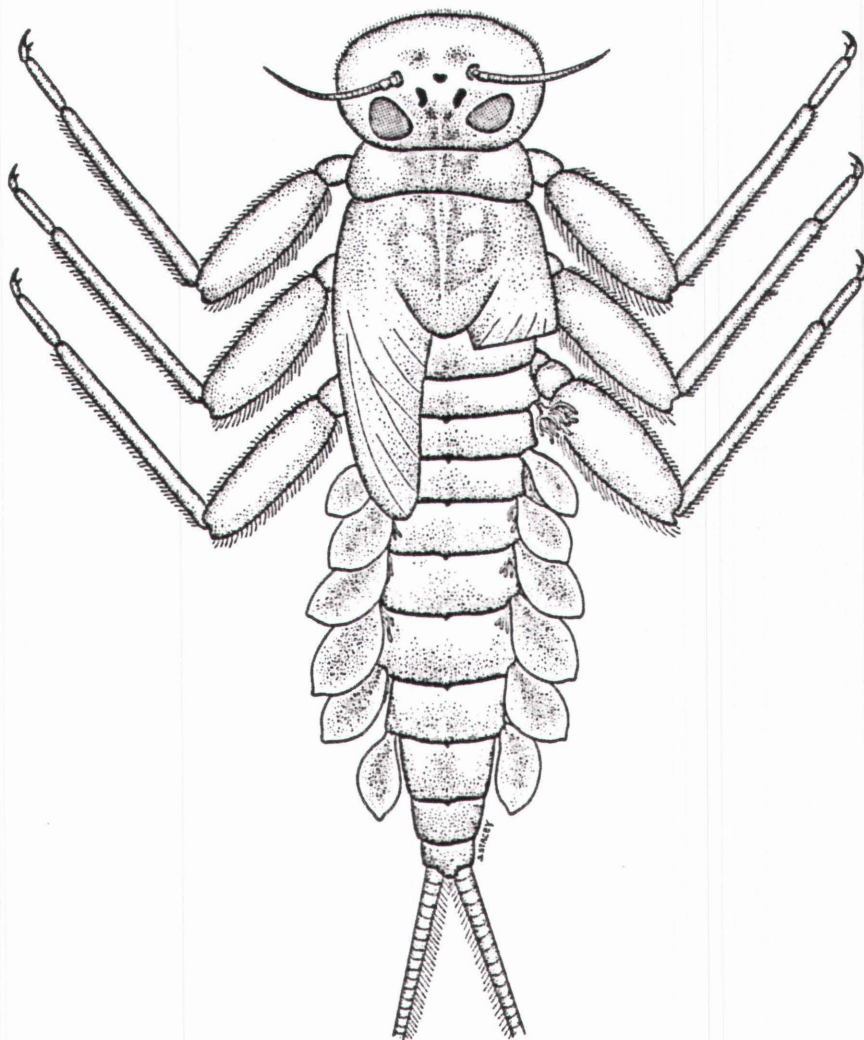


Figure 171. *Acanthomola pubescens*, larval habitus.

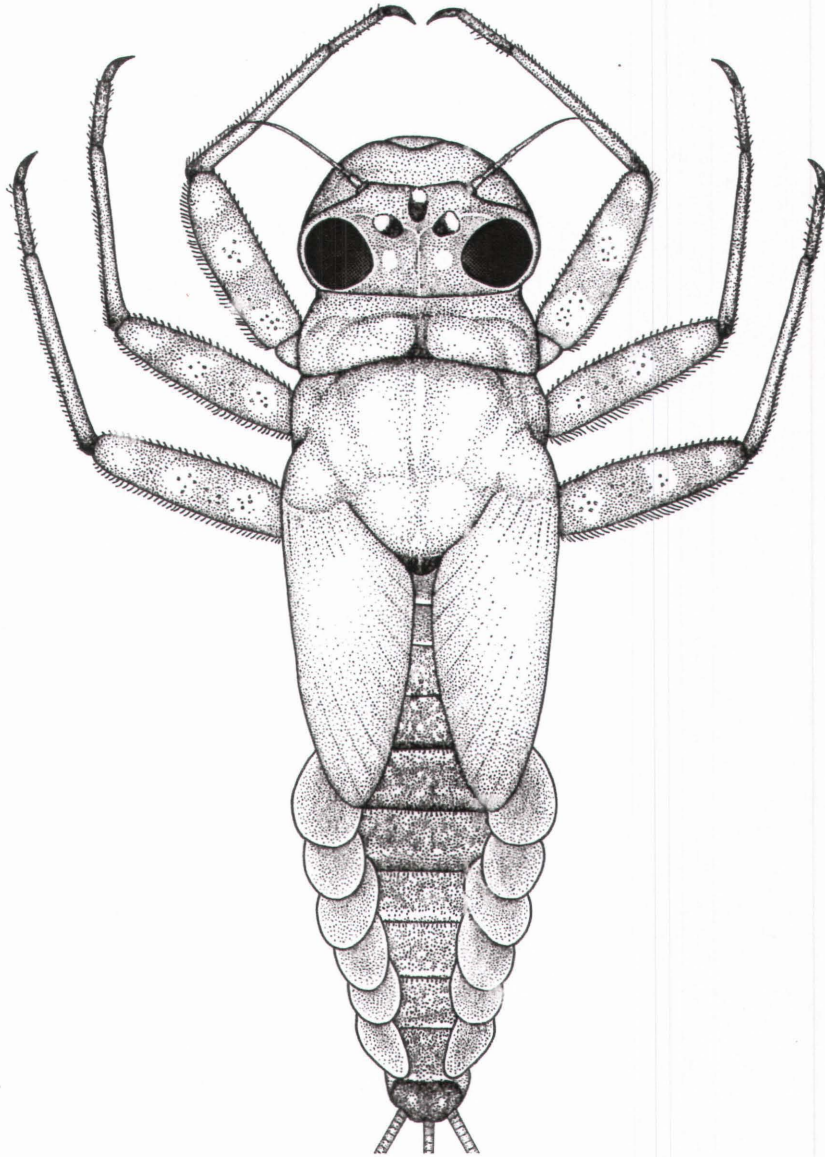


Figure 172. *Cinygmula* sp., dorsal habitus of larva.

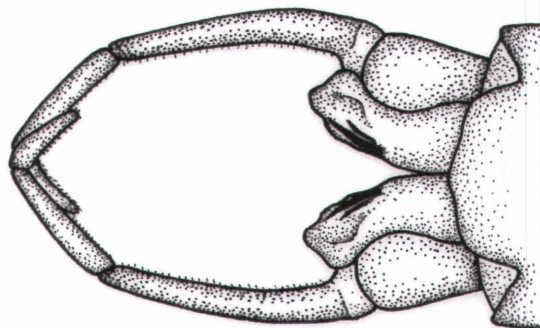


Figure 173. *Cinygmula minus*, male genitalia.

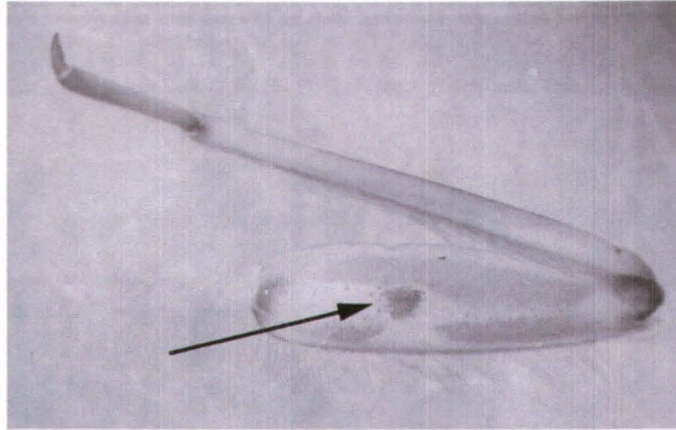


Figure 174. *Epeorus longimanus*, fore leg of larva. Arrow indicates black spot on femur.



Figure 175. *Epeorus longimanus*, male genitalia.



Figure 176. *Heptagenia adaequata*, head capsule of larva.

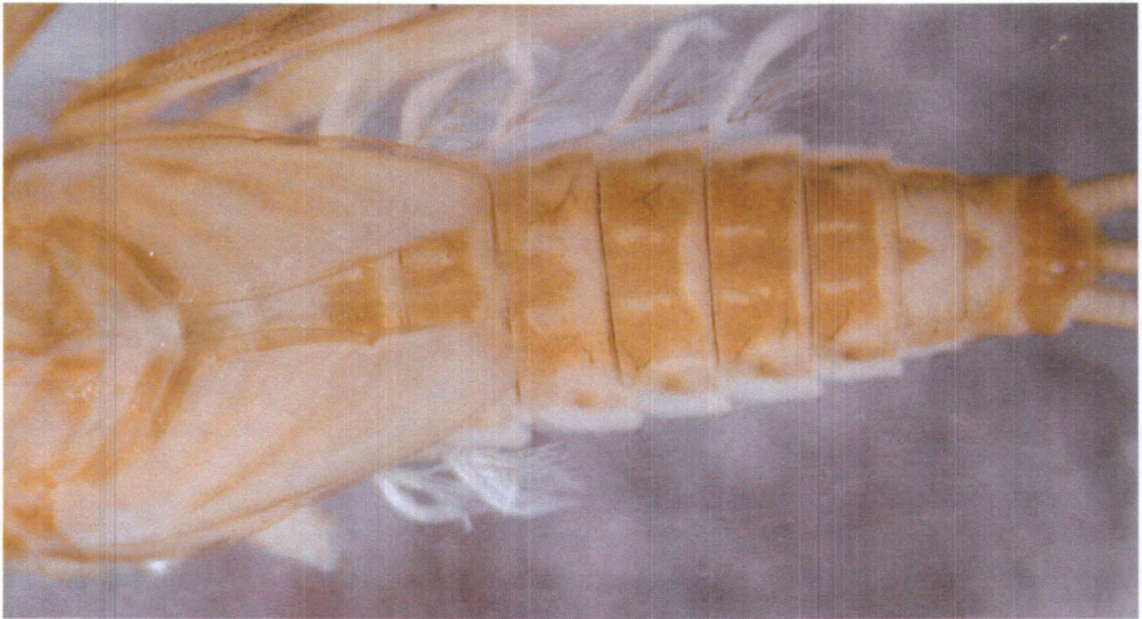


Figure 177. *Heptagenia adaequata*, abdominal terga of larva.

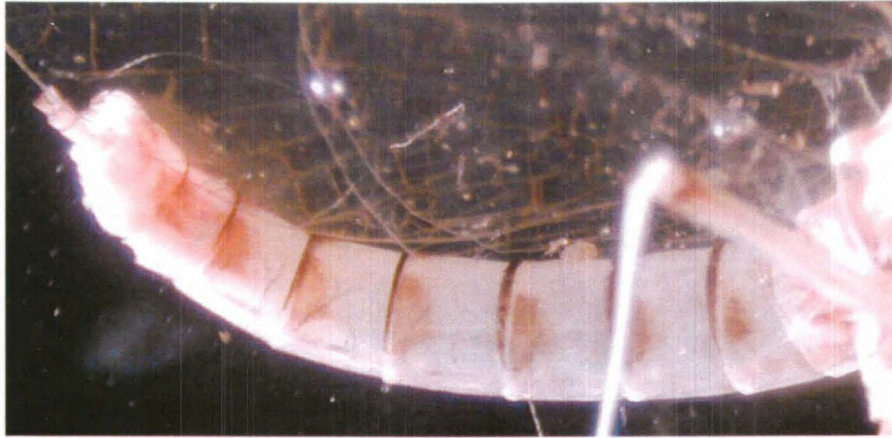


Figure 178. *Heptagenia adaequata*, abdomen of adult male.

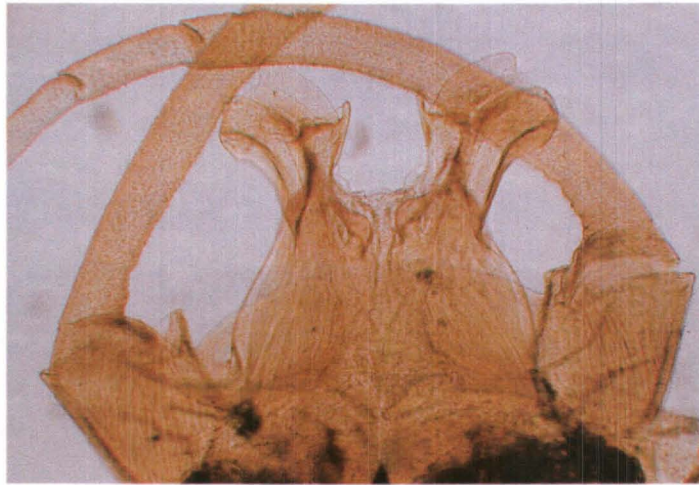


Figure 179. *Heptagenia adaequata*, male genitalia.



Figure 180. *Heptagenia diabasia*, dorsal larval habitus.

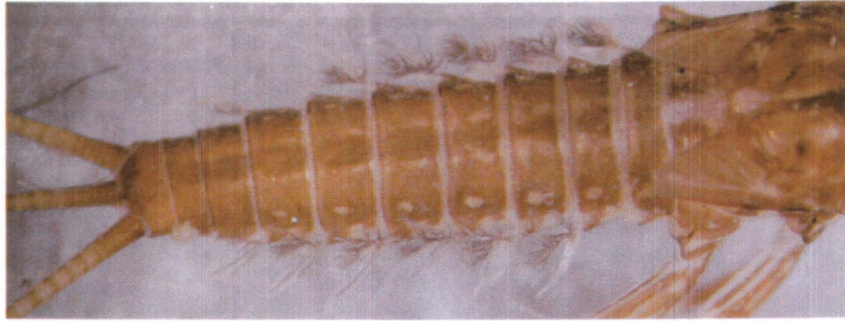


Figure 181. *Heptagenia diabasia*, larval abdominal terga.



Figure 182. *Heptagenia diabasia*, ventral view of larva.



Figure 183. Dorsal habitus of *Heptagenia diabisia* (left), *H. diabisiaXH.elegantula* (center), and *H. elegantula* (left).

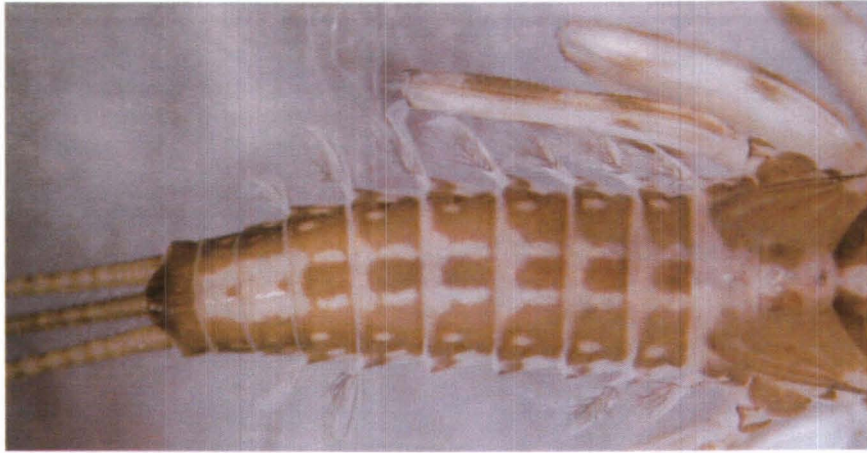


Figure 184. *Heptagenia elegantula*, abdominal terga of larva.

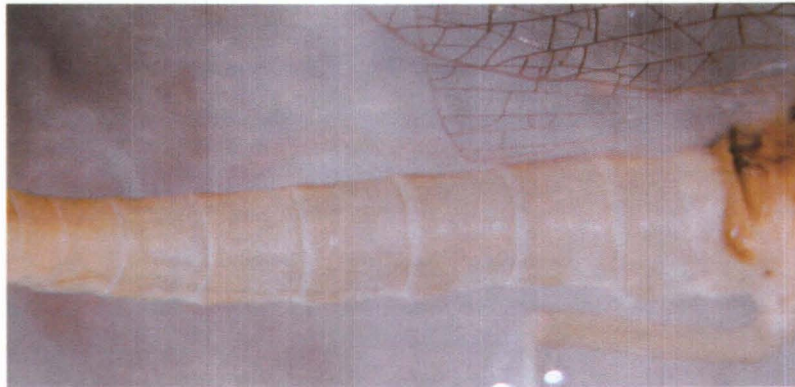


Figure 185. *Heptagenia elegantula*, dorsal view of adult male abdominal terga.

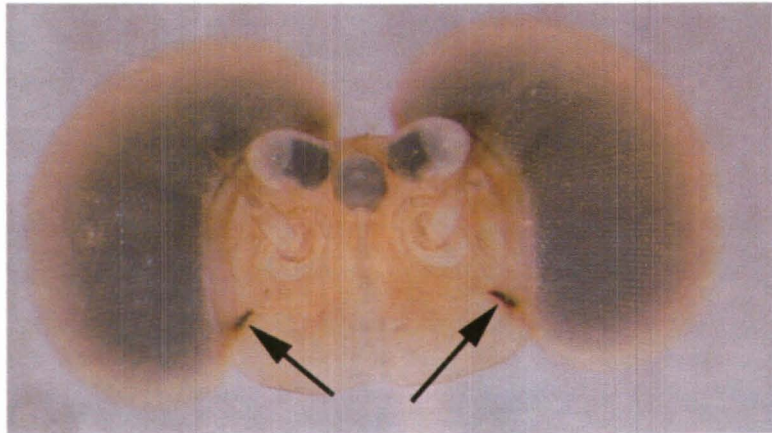


Figure 186. *Heptagenia elegantula*, anterior view of head of adult male. Arrows indicate black lines near margin of eyes.

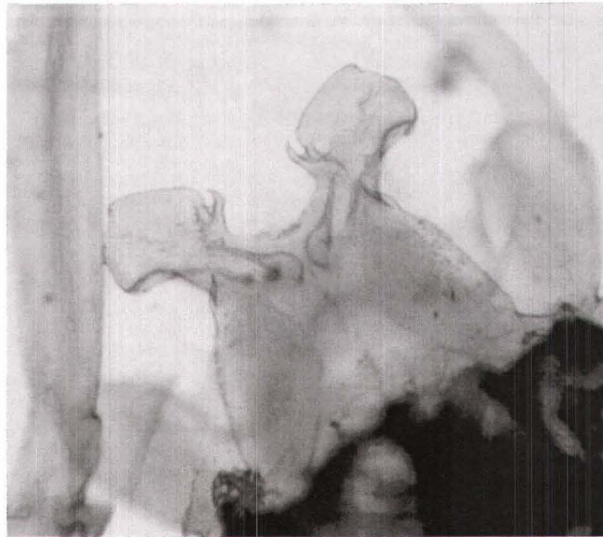


Figure 187. *Heptagenia elegantula*, male penes.

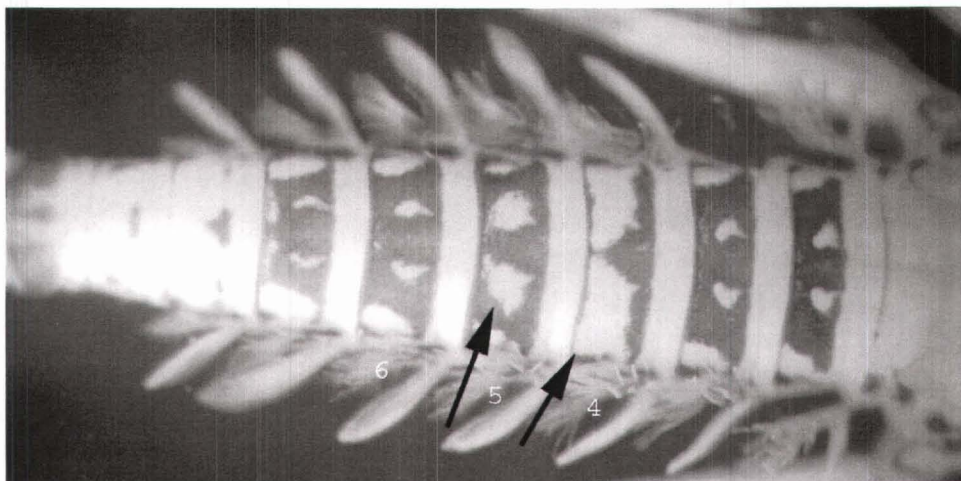


Figure 188. *Heptagenia flavescens*, dorsal view of larval abdominal terga. Arrows indicate circular markings on tergum 5 and square markings on tergum 4.



Figure 189. *Heptagenia flavescens*, male penes.

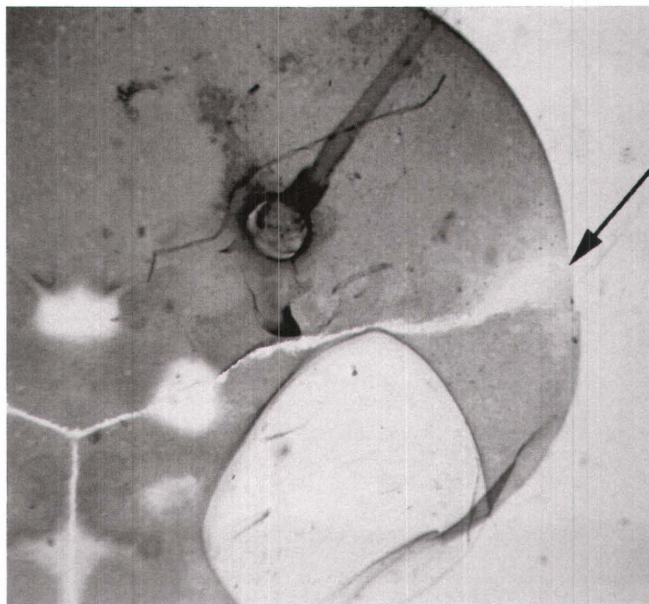


Figure 190. *Heptagenia pulla*, larval head capsule. Arrow indicates narrow streak on lateral margin of head capsule.

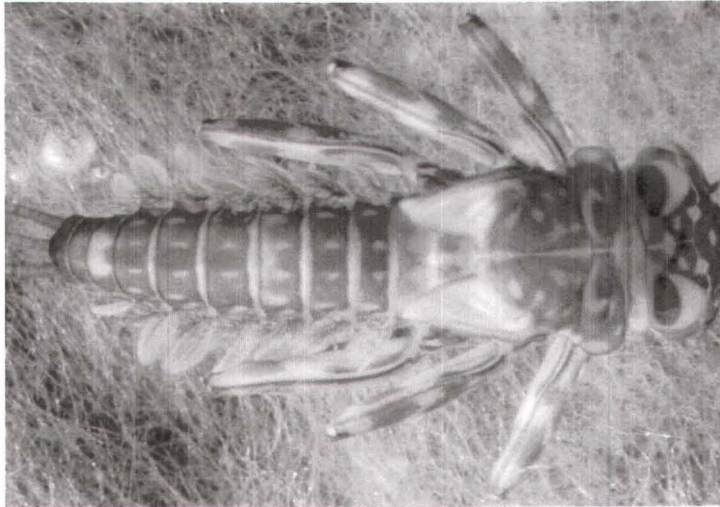


Figure 191. *Heptagenia pulla*, dorsal habitus of larva.

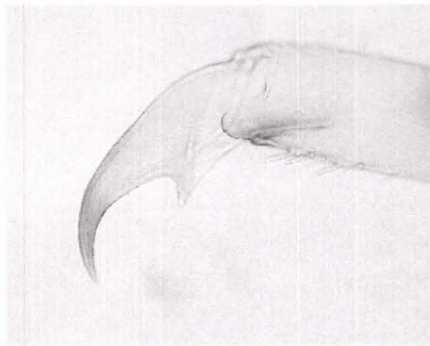


Figure 192. *Heptagenia pulla*, larval tarsal claw.



Figure 193. *Heptagenia pulla*, penes.



Figure 194. *Leucrocuta hebe*, dorsal habitus of larva.



Figure 195. *Leucrocuta hebe*, ventral view of larva.

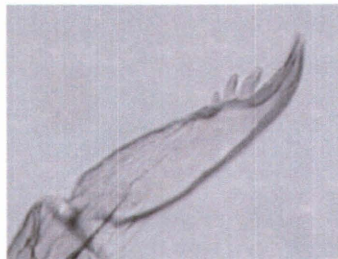


Figure 196. *Leucrocuta hebe*, larval tarsal claw.



Figure 197. *Leucrocuta maculipennis*, dorsal habitus of larva.



Figure 198. *Leucrocuta maculipennis*, penes.

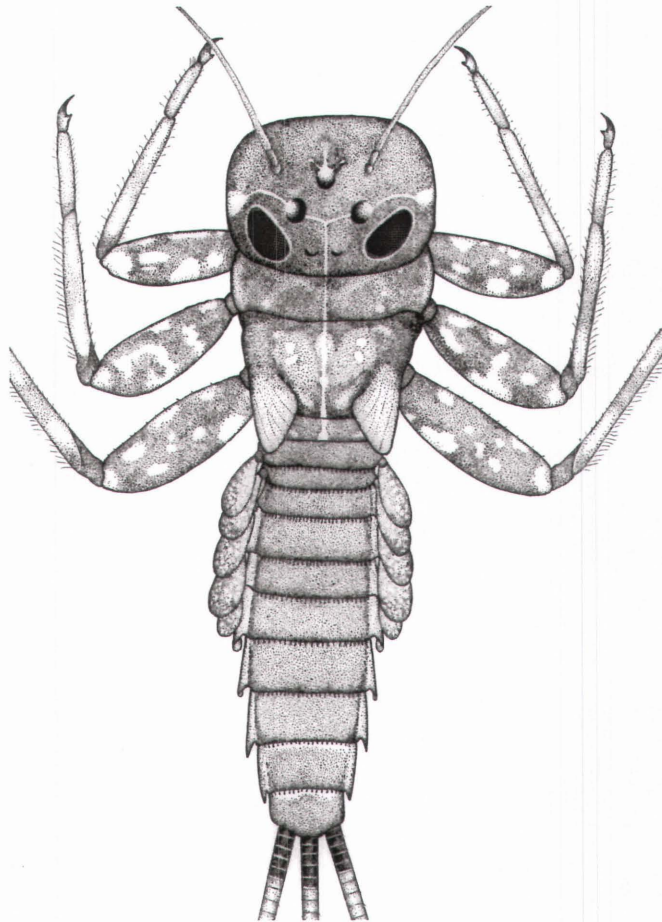


Figure 199. *Macdunnoa nipawinia*, dorsal habitus of larva.



Figure 200. *Nixe inconspicua*, dorsal habitus of larva.



Figure 201. *Nixe inconspicua*, male imago.

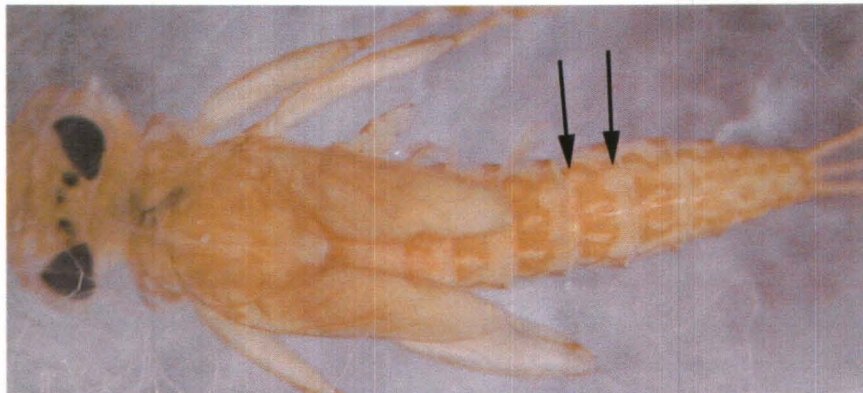


Figure 202. *Nixe lucidipennis*, dorsal habitus of larva. Arrows indicate presence of two pale sub-lateral markings on tergum.

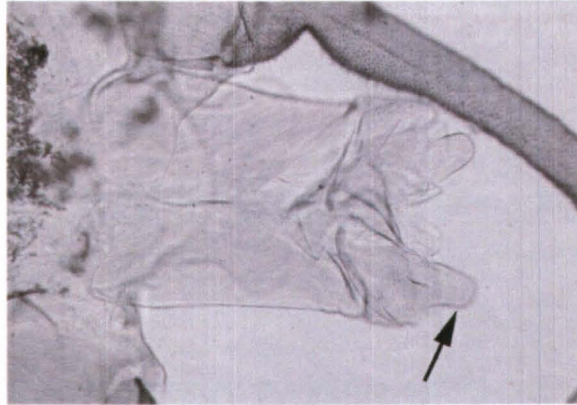


Figure 203. *Nixe lucidipennis*, penes. Arrow indicates apical projection.

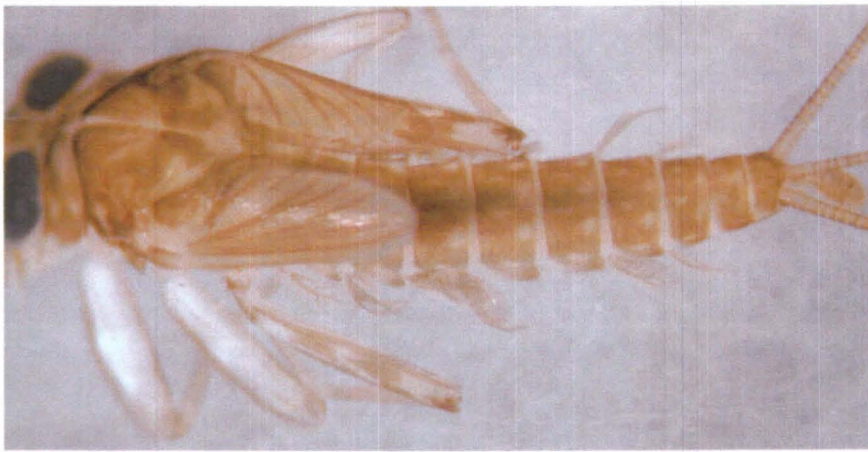


Figure 204. *Nixe rusticalis*, dorsal view of larva.



Figure 205. *Nixe rusticalis*, ventral view of larva.

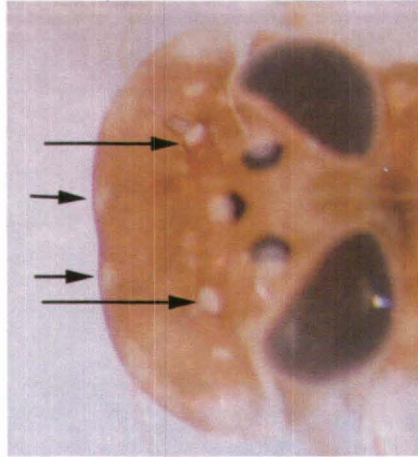


Figure 206. *Nixe rusticalis*, larval head capsule. Arrows indicate the position of the median pair of marginal pale spots relative to the bases of the antennae.

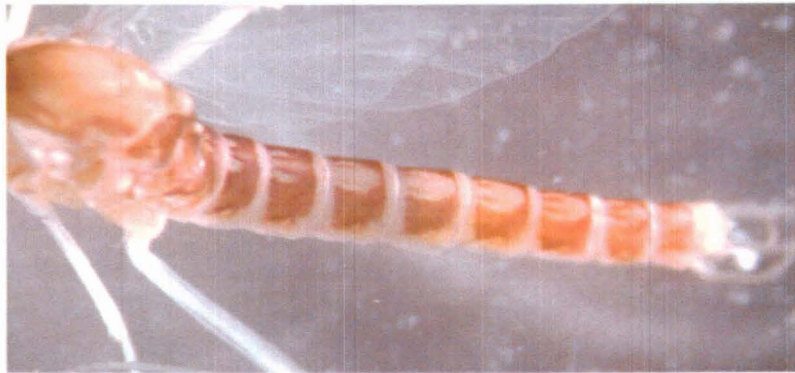


Figure 207. *Nixe rusticalis*, male abdominal terga.



Figure 208. *Nixe rusticalis*, penes.

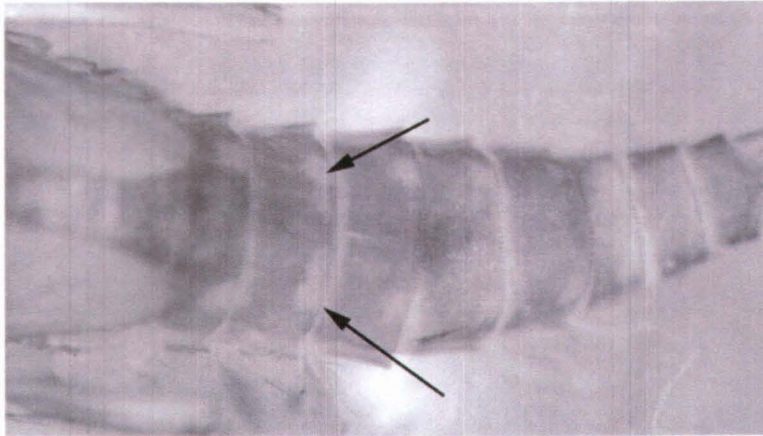


Figure 209. *Nixe simplicoides*, larval abdominal terga. Arrows indicate rectangular pale markings on tergum 4.

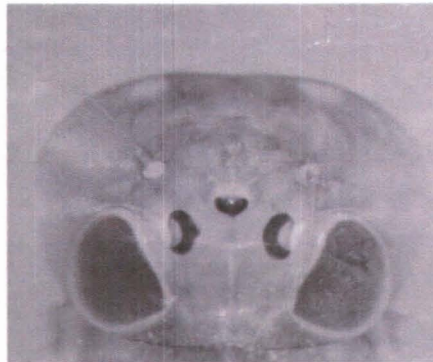


Figure 210. *Nixe simplicoides*, larval head capsule.



Figure 211. *Nixe simplicoides*, male abdominal segments.



Figure 212. *Nixe simplicoides*, penes.

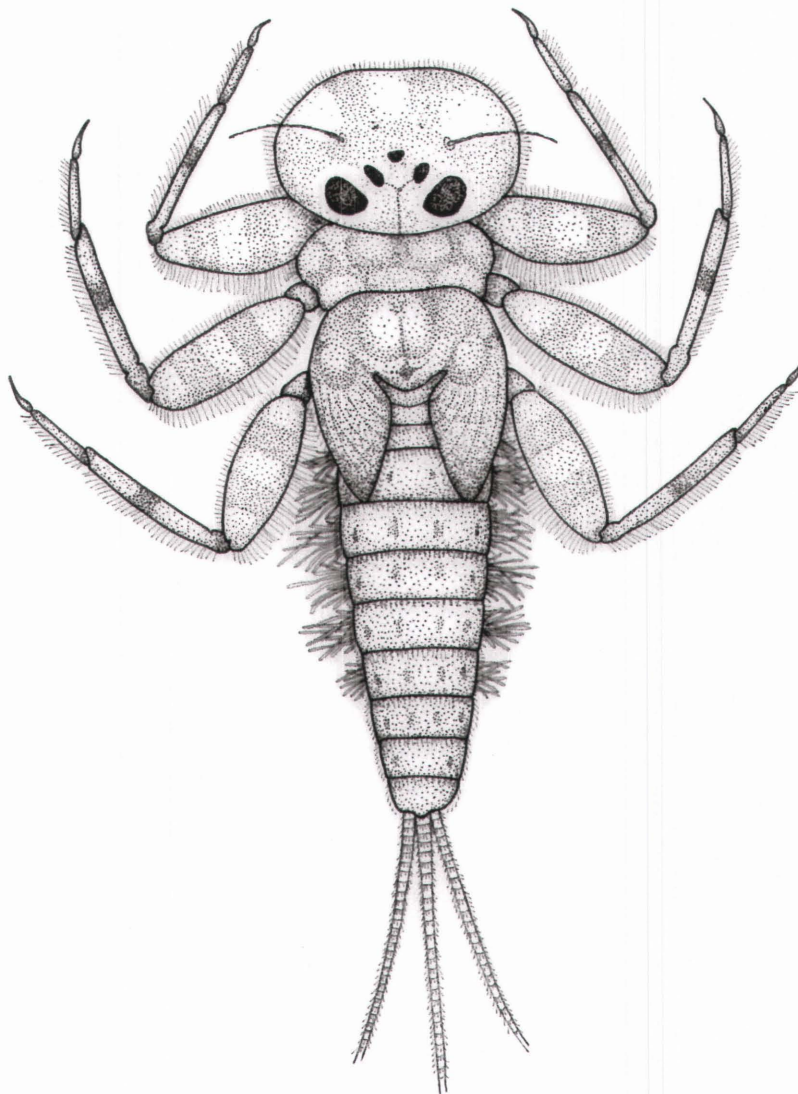


Figure 213. *Raptioheptagenia cruentata*, dorsal habitus of larva.

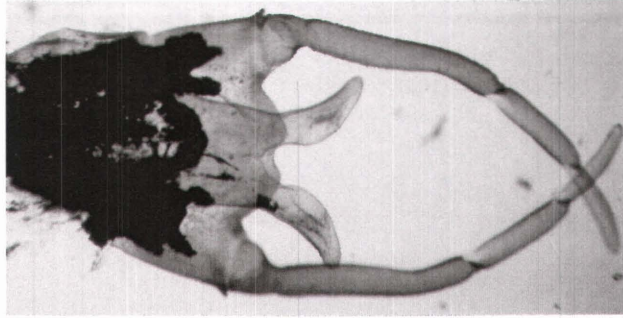


Figure 214. *Rhithrogena jejuna*, penes. Photo of specimen from Nova Scotia, Cumberland Co., Maccan River, south of Mapleton. 29/V/1989 ERW.

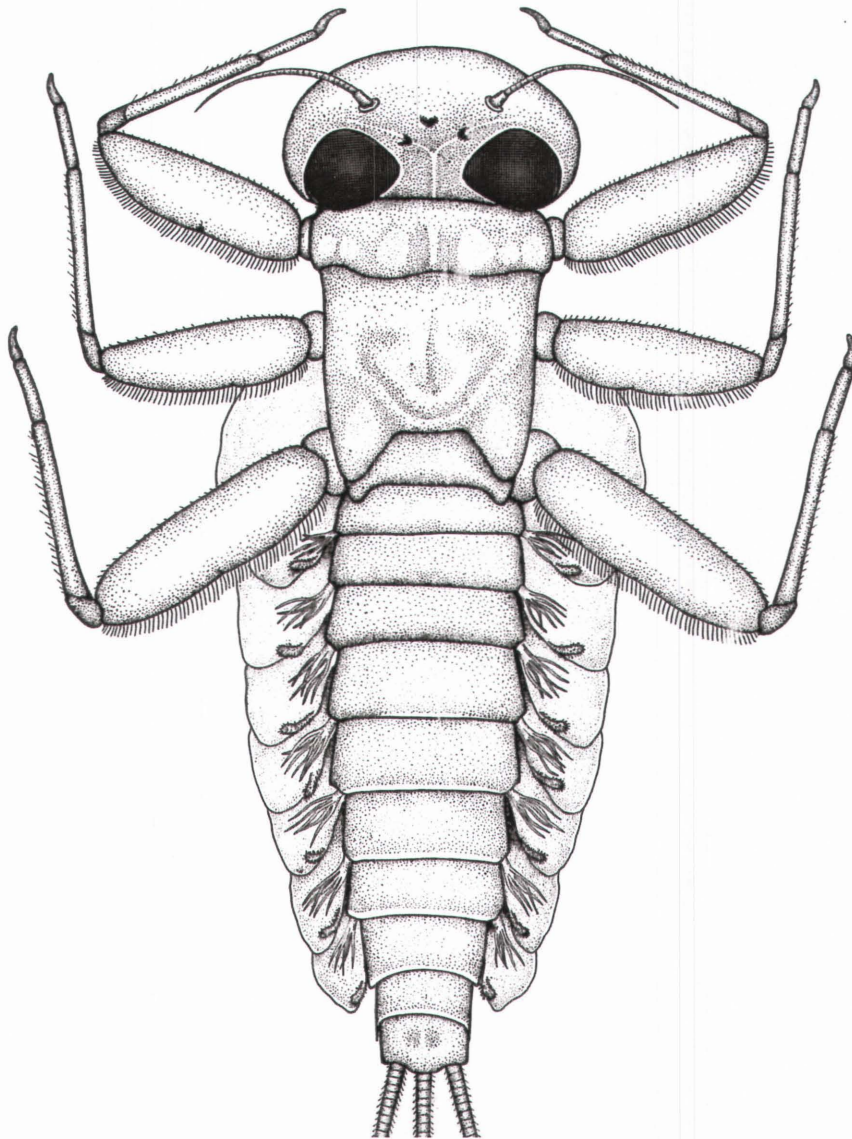


Figure 215. *Rhithrogena undulata*, dorsal habitus of larva.

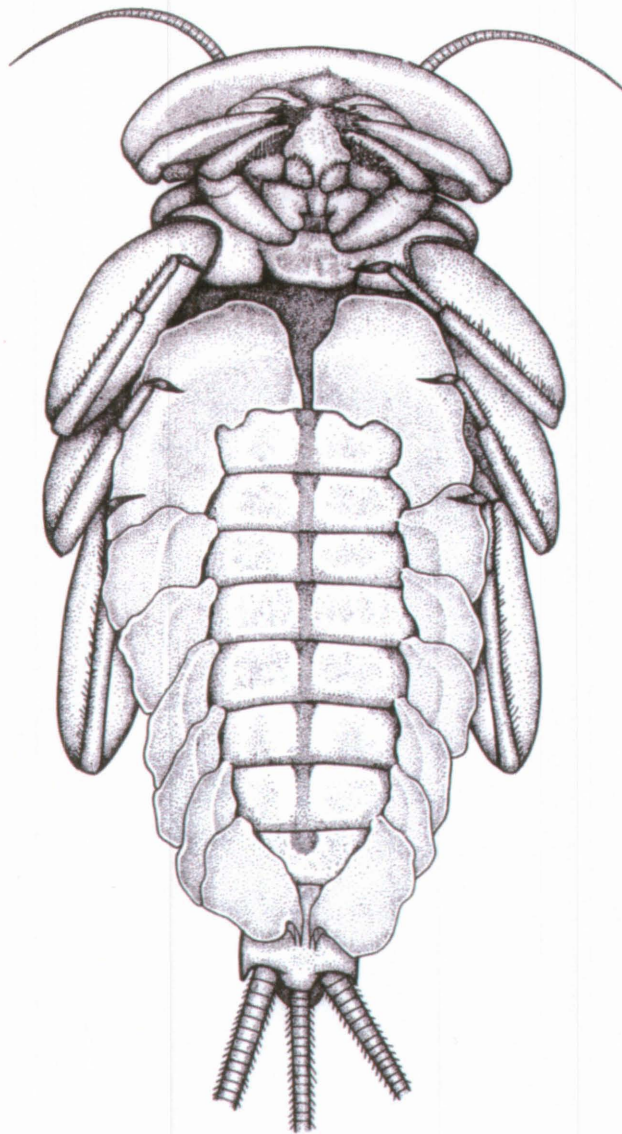


Figure 216. *Rhithrogena undulata*, ventral view of larva.

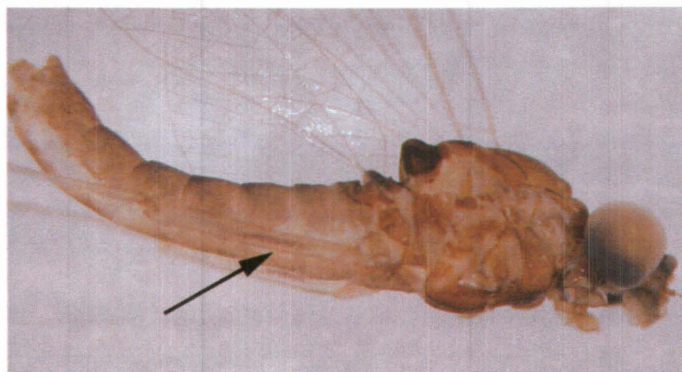


Figure 217. *Rhithrogena* sp. male imago. Arrow indicates dark streak on femur.

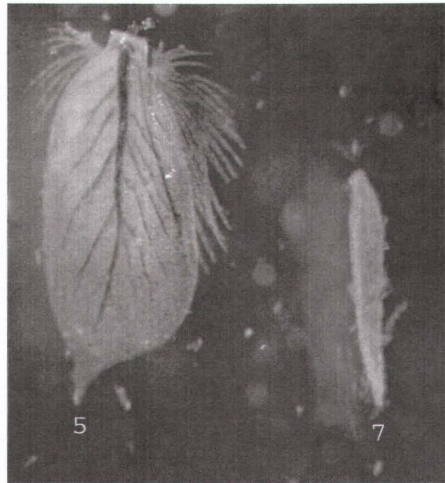


Figure 218. *Stenacron interpunctatum*, abdominal gills 5 and 7.

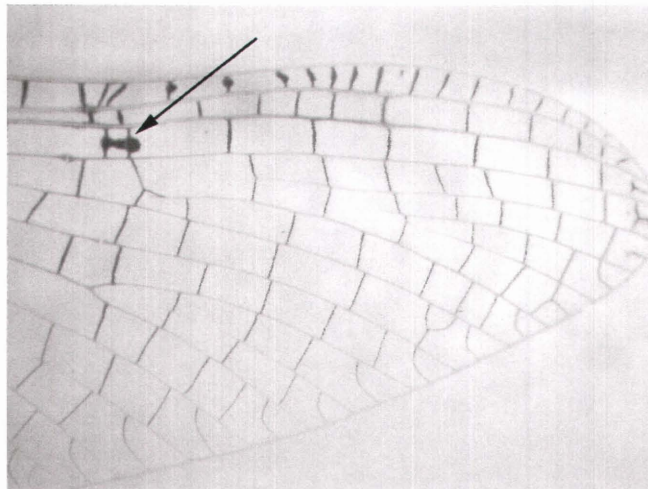


Figure 219. *Stenacron interpunctatum*, fore wing. Arrow indicates black mark connecting cross veins.

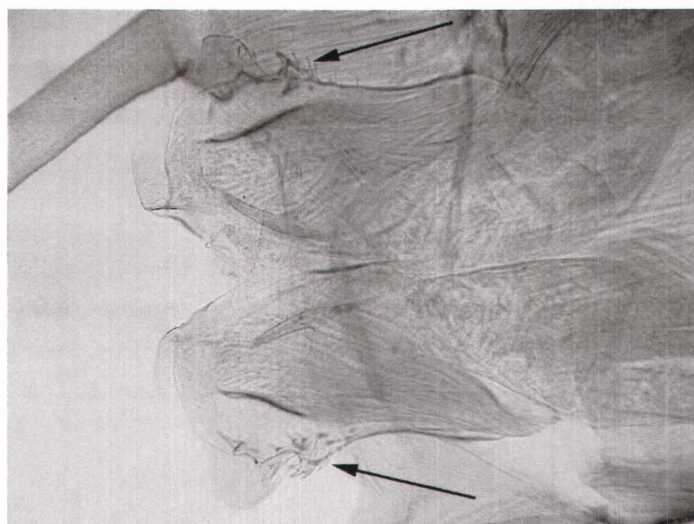


Figure 220. *Stenacron interpunctatum*, penes. Arrow indicates numerous spines on lateral margin.

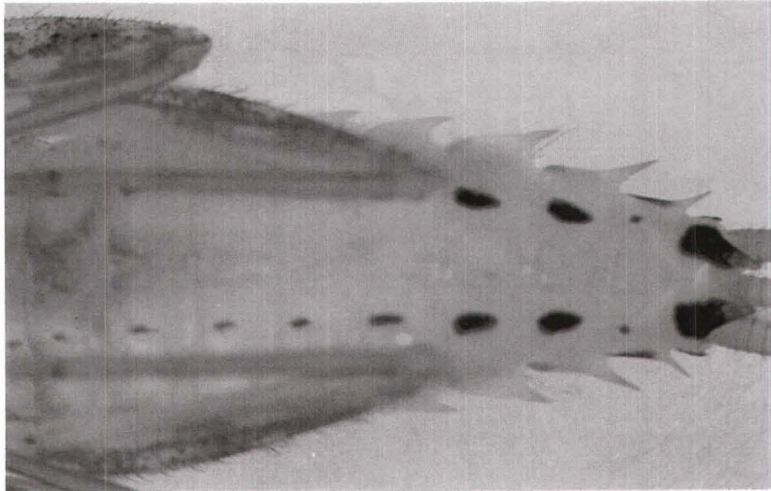


Figure 221. *Stenonema femoratum*, larval abdominal sterna.



Figure 222. *Stenonema femoratum*, abdominal gills 4 and 7.



Figure 223. *Stenonema femoratum*, lateral view of male abdominal terga.

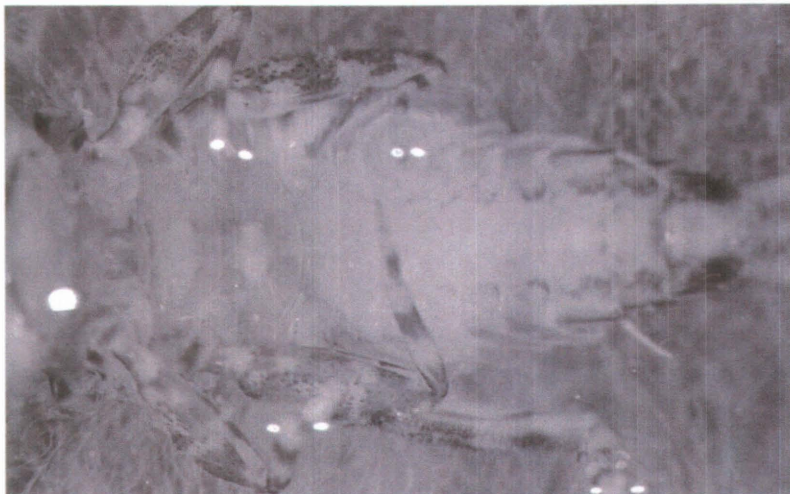


Figure 224. *Stenonema terminatum*, larval abdominal sterna.



Figure 225. *Stenonema terminatum*, lateral view of male abdominal terga.



Figure 226. *Stenonema terminatum*, penes.

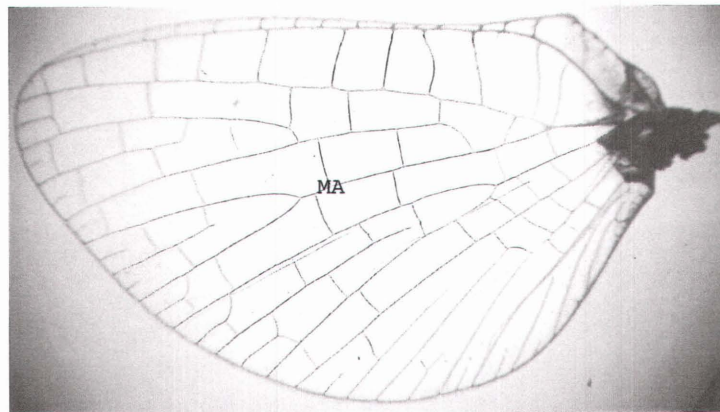


Figure 227. *Stenonema terminatum*, hind wing. Vein MA is indicated.

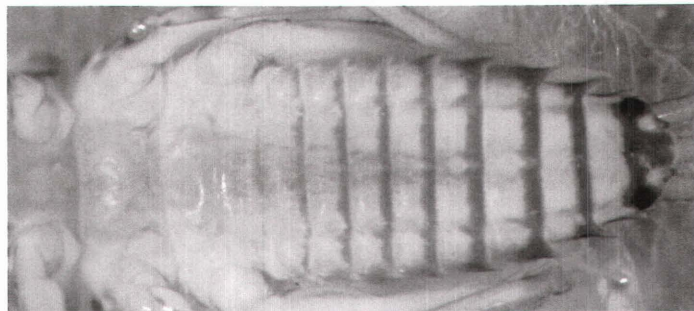


Figure 228. *Stenonema vicarium*, larval abdominal sterna.

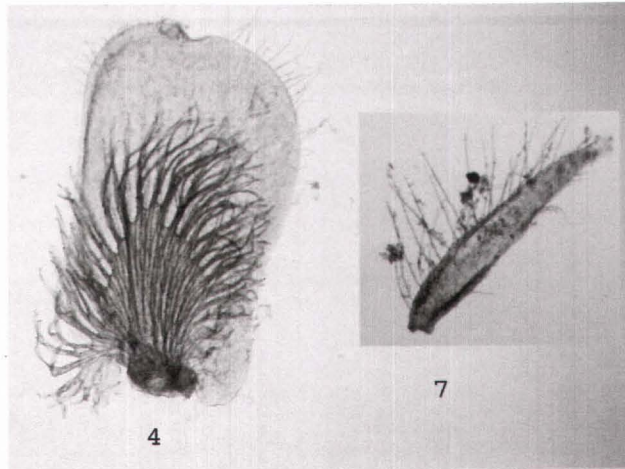


Figure 229. *Stenonema vicarium*, abdominal gills 4 and 7.

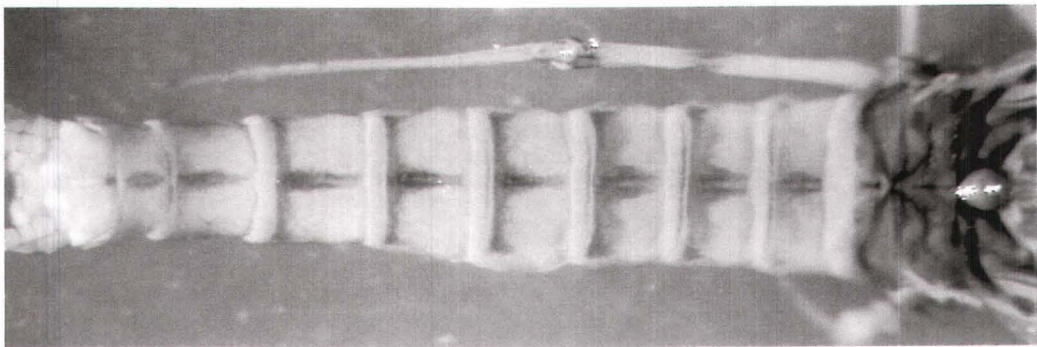


Figure 230. *Stenonema vicarium*, dorsal view of male abdominal terga.

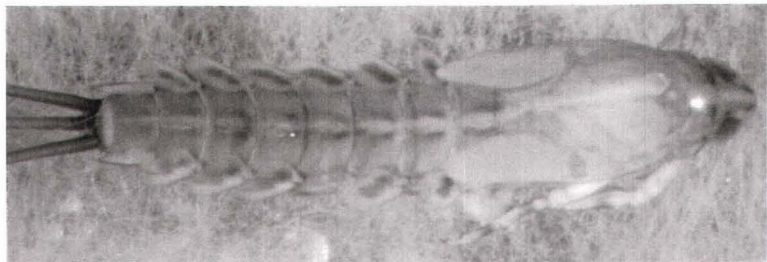


Figure 231. *Isonychia campestris*, dorsal habitus of larva.

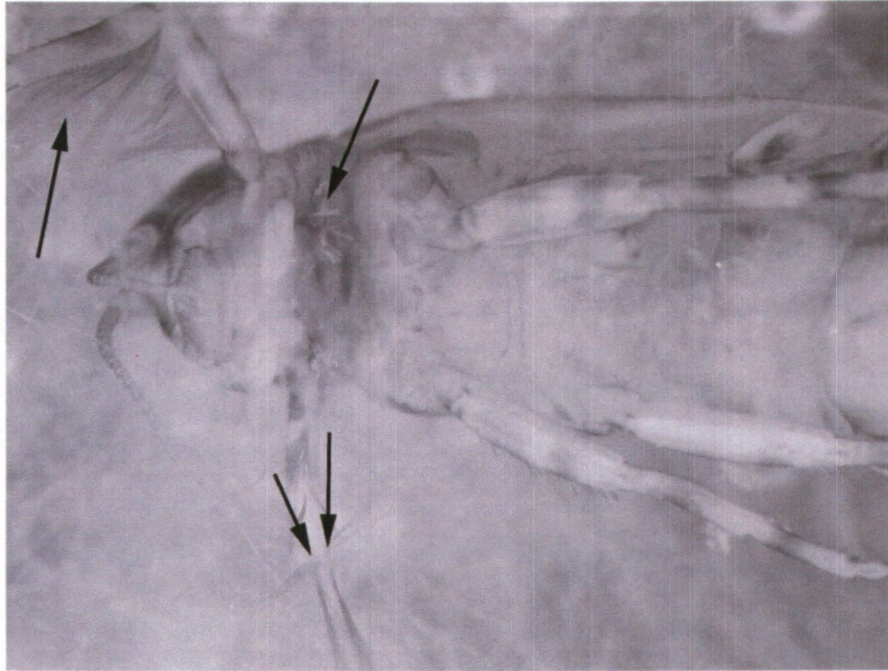


Figure 232. *Isonychia campestris*, ventral view of larval head and thorax. Arrows indicate fore coxal gills and the double row of long setae on femora and tibiae.



Figure 233. *Isonychia campestris* lateral view of male imago.

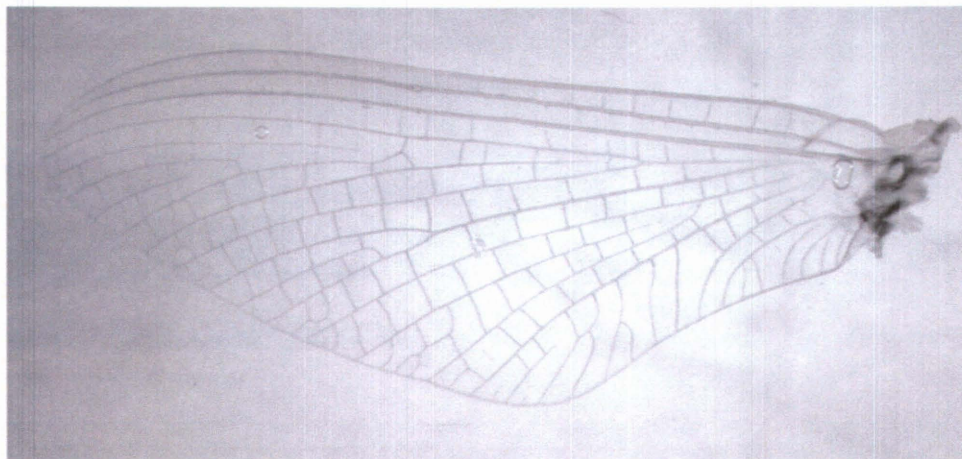


Figure 234. *Isonychia campestris*, fore wing.

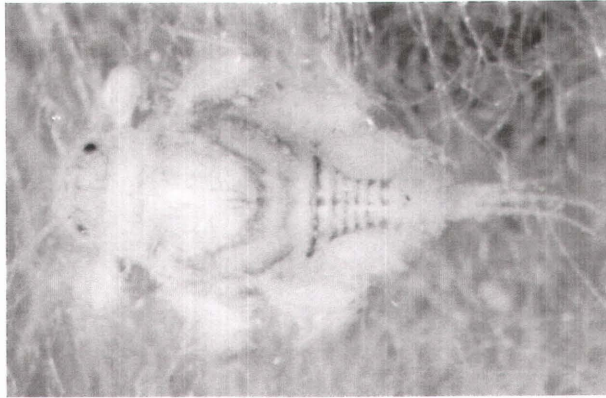


Figure 235. *Asioplax corpulenta/edmundsi*, dorsal habitus of larva.

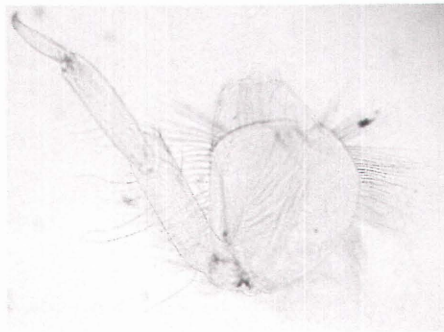


Figure 236. *Asioplax corpulenta/edmundsi*, larval fore leg.

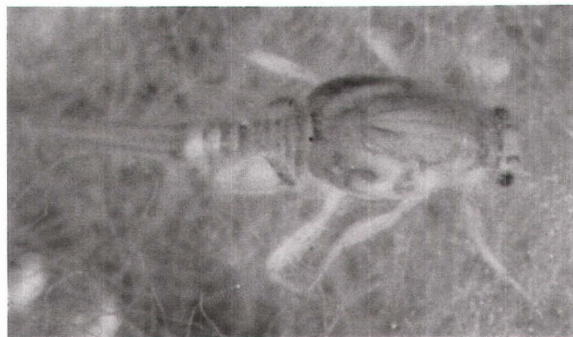


Figure 237. *Tricorythodes minutus*, dorsal habitus of larva.

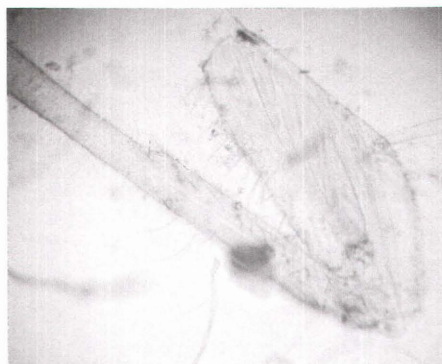


Figure 238. *Tricorythodes minutus*, larval fore leg.

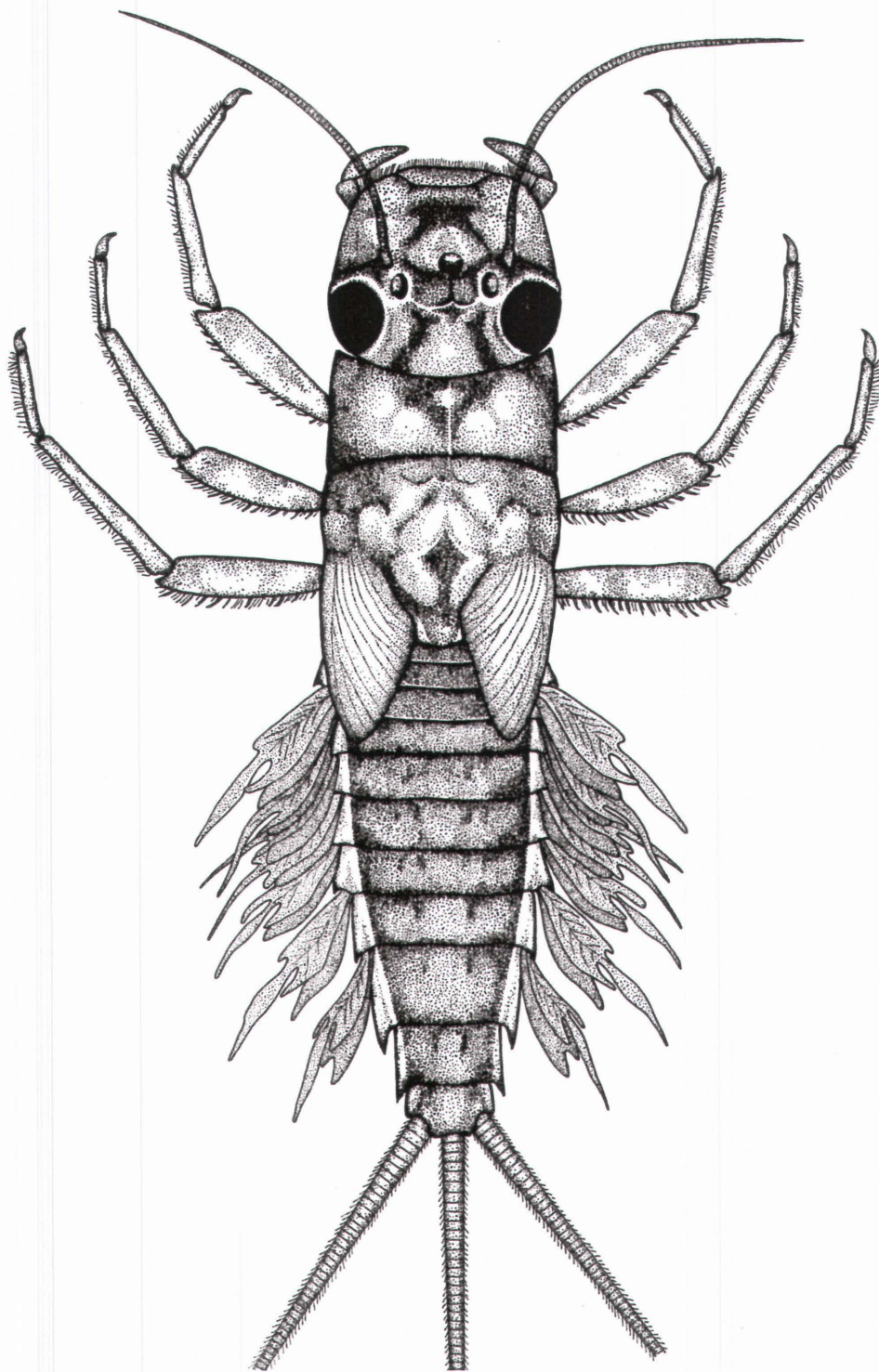


Figure 239. *Choroterpes albiannulata*, dorsal habitus of larva.

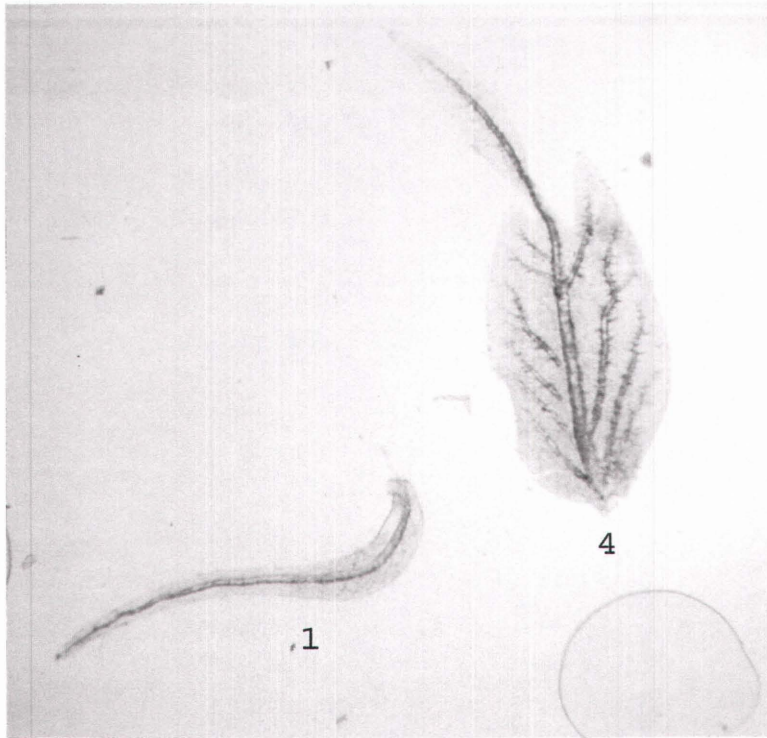


Figure 240. *Choroterpes albiannulata*, abdominal gill 1 and one lamella of gill 4.

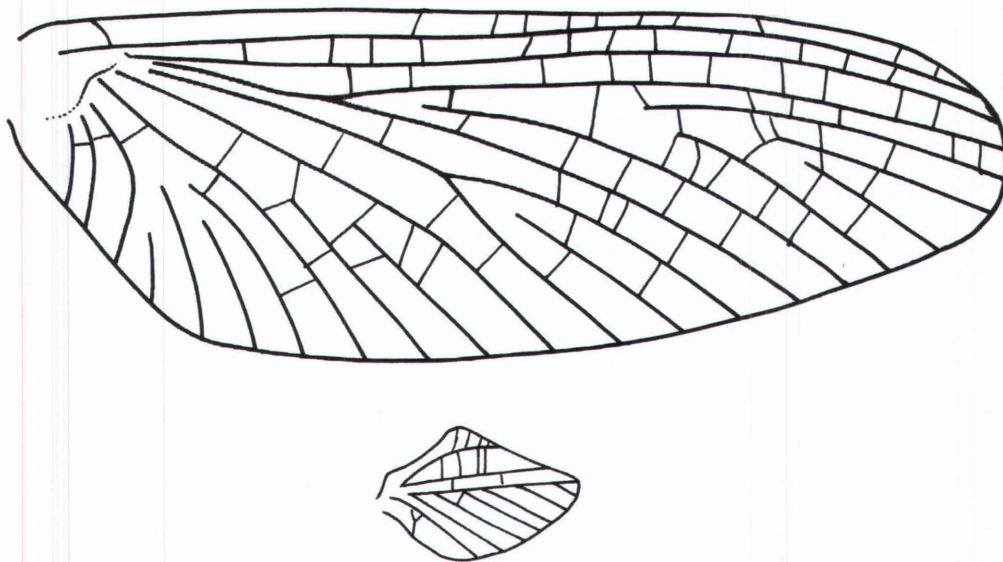


Figure 241. *Choroterpes albiannulata*, wings.



Figure 242. *Leptophlebia nebulosa*, male genitalia.

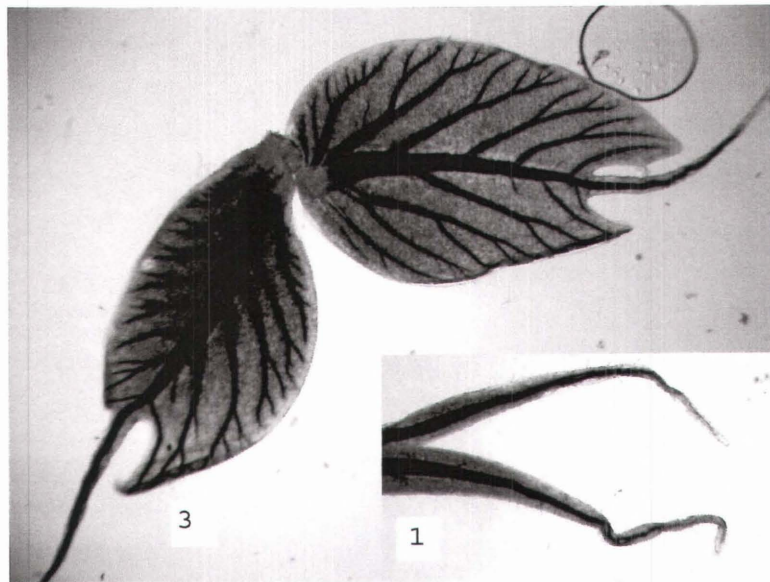


Figure 243. *Leptophlebia* sp., larval gills 1 and 3.



Figure 244. *Paraleptophlebia adoptiva*, larval gill 4.

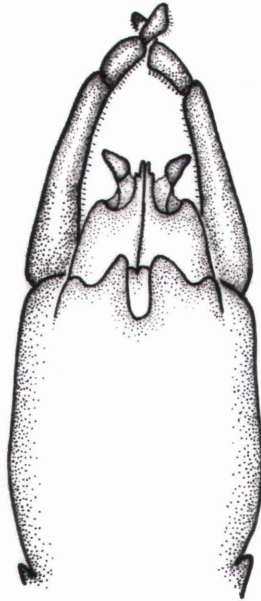


Figure 245. *Paraleptophlebia adoptiva*, male genitalia.

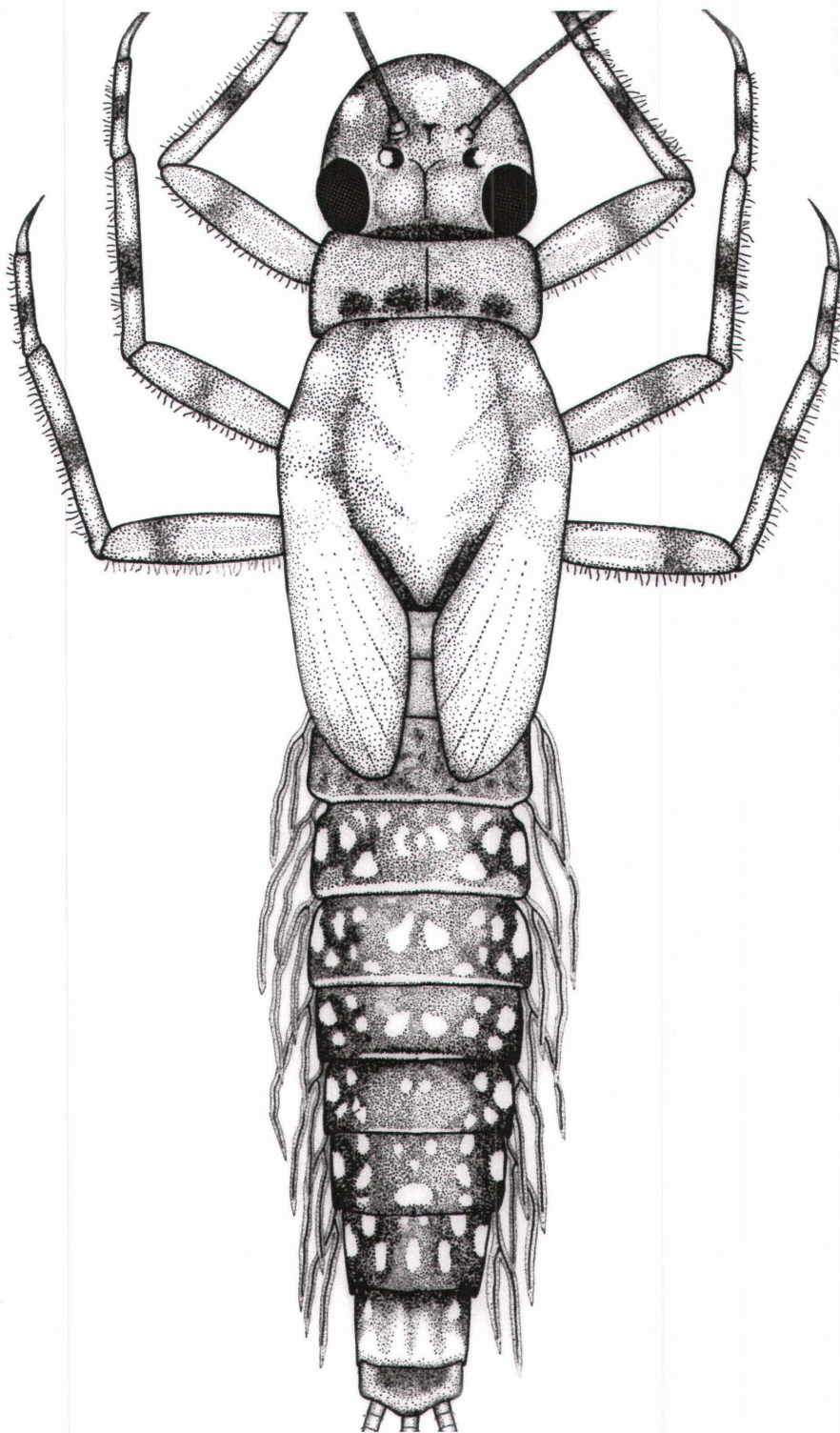


Figure 246. *Paraleptophlebia debilis*, dorsal habitus of larva.

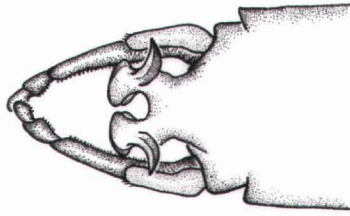


Figure 247. *Paraleptophlebia debilis*, male genitalia.

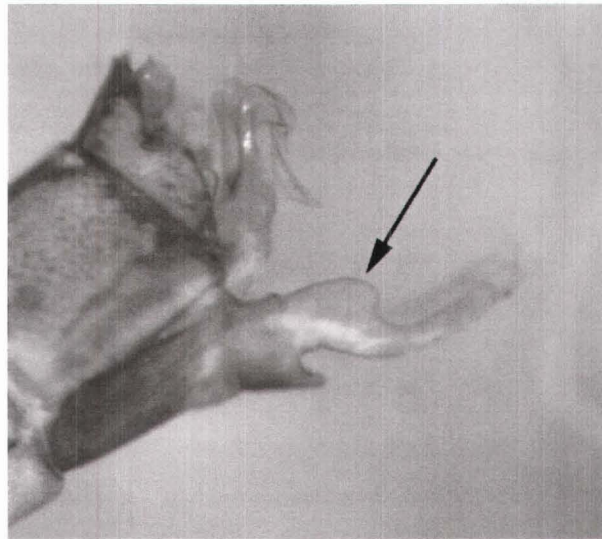


Figure 248. *Paraleptophlebia debilis*, lateral view of male genitalia. Arrow indicates dorsal bulge on forceps.

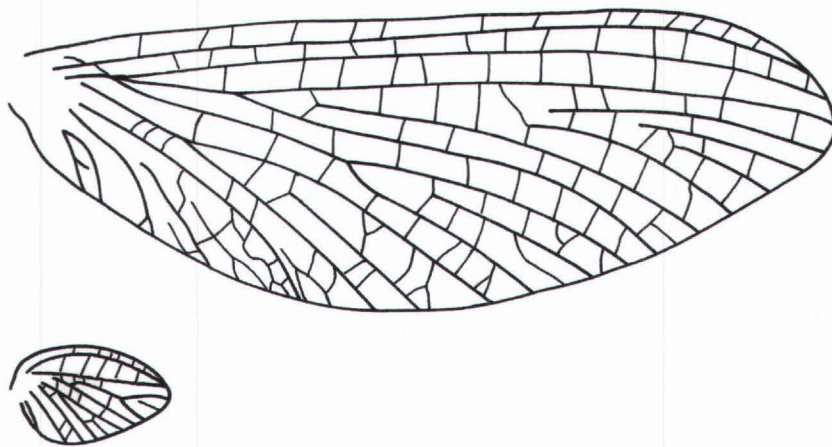


Figure 249. *Paraleptophlebia praepedita*, wings.

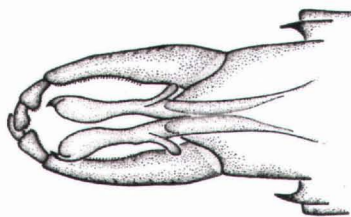


Figure 250. *Paraleptophlebia praepedita*, male genitalia.

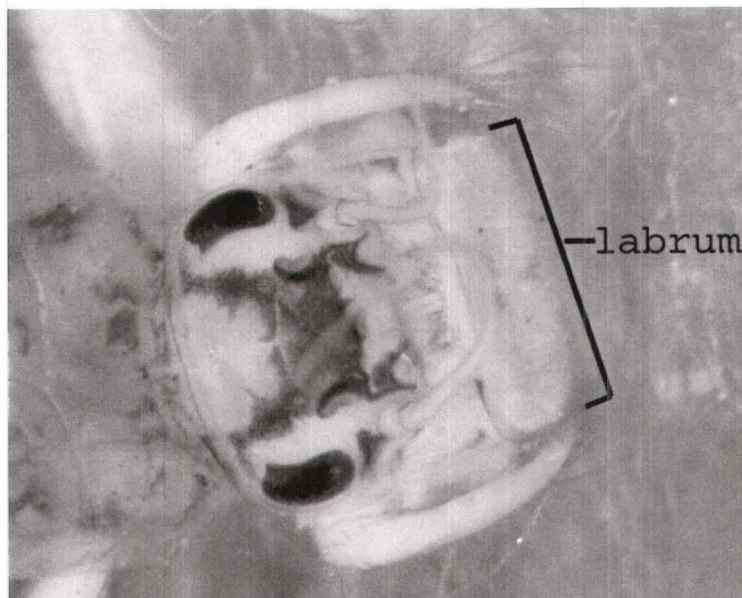


Figure 251. *Traverella albertana*, larval head capsule. Bracket indicates wide labrum.

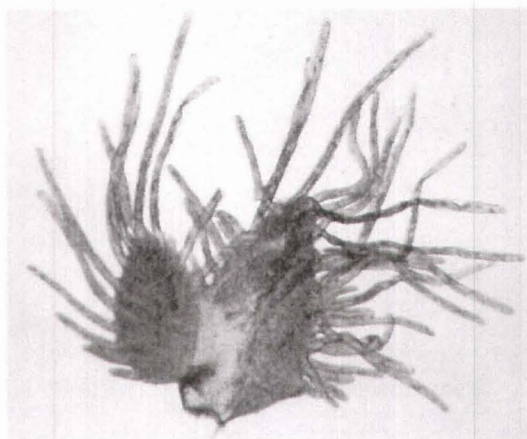


Figure 252. *Traverella albertana*, larval gill 4.

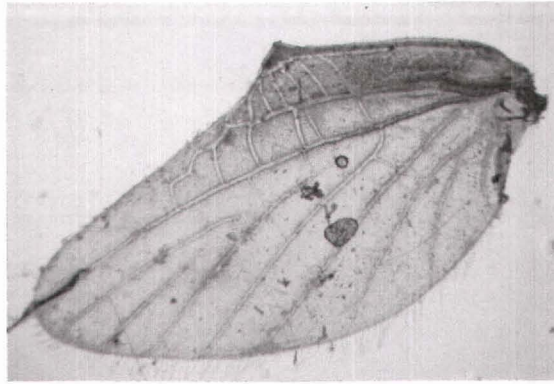


Figure 253. *Traverella albertana*, hind wing of subimago.

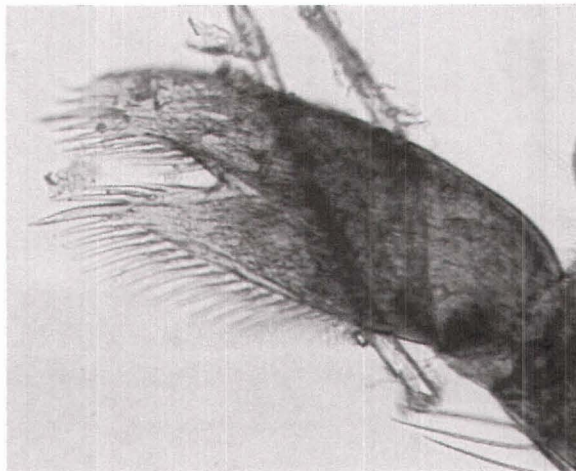


Figure 254. *Metretopus borealis*, larval fore claw.

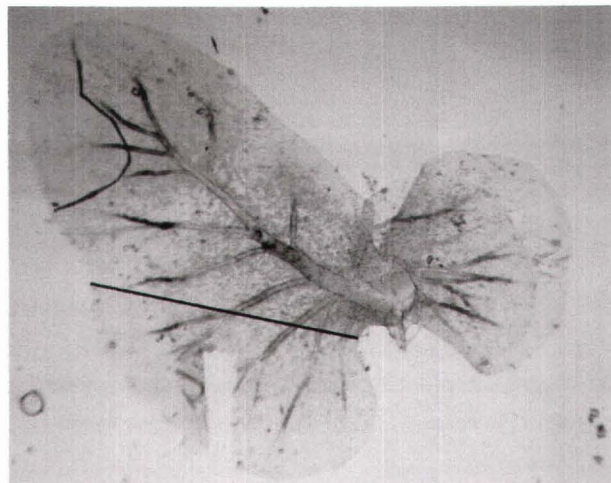


Figure 255. *Siphloplecton basale*, gill 2. Black line indicates approximate area where gill lamella recurves.

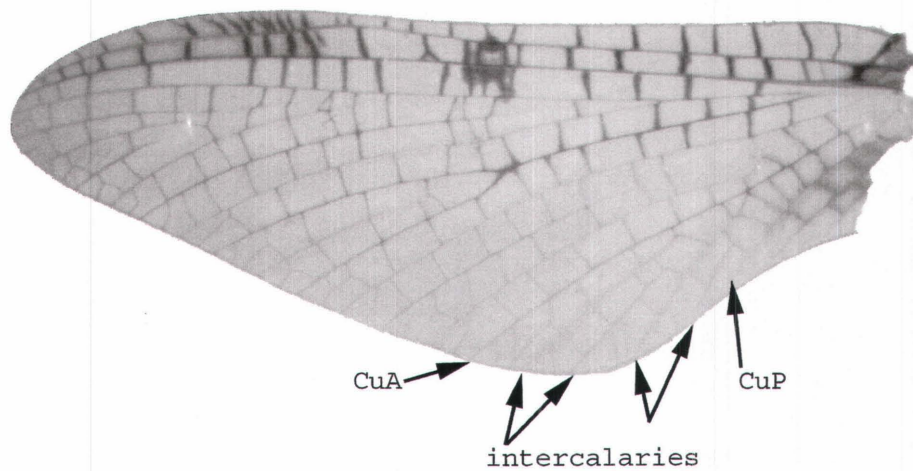


Figure 256. *Siphloplecton basale*, fore wing. Arrows indicate CuA, CuP, and the two pairs of cubital intercalaries.

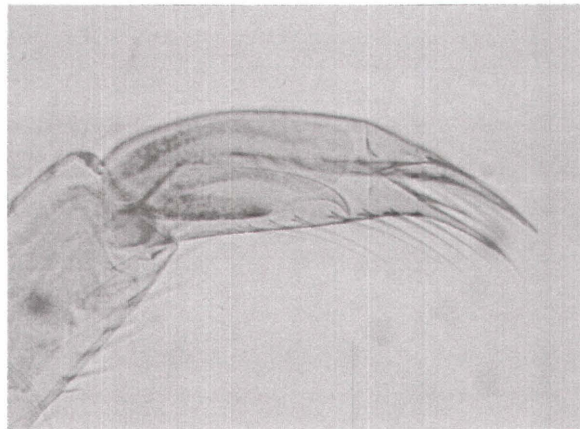


Figure 257. *Siphloplecton interlineatum*, larval fore tarsal claw.

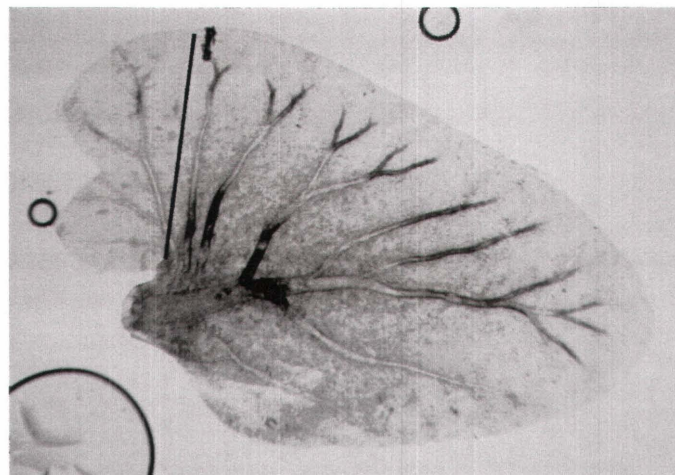


Figure 258. *Siphloplecton interlineatum*, larval gill 2. Black line indicates approximate area where gill recurves.

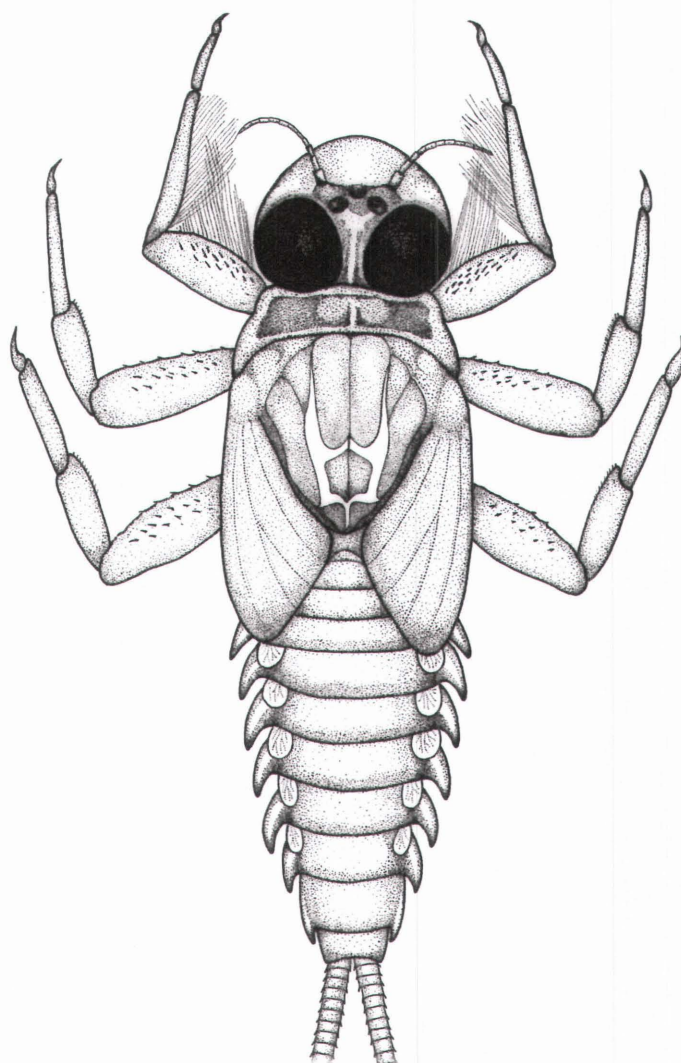


Figure 259. *Lachlania saskatchewanensis*, dorsal habitus of larva.

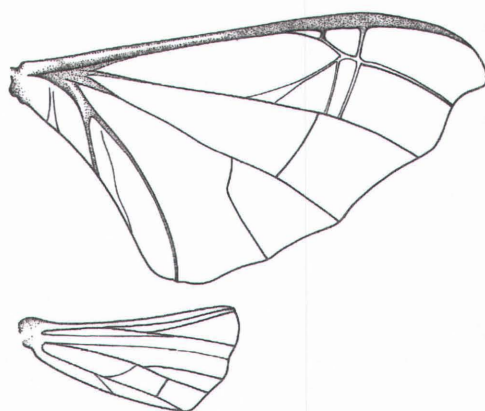


Figure 260. *Lachlania saskatchewanensis*, wings.

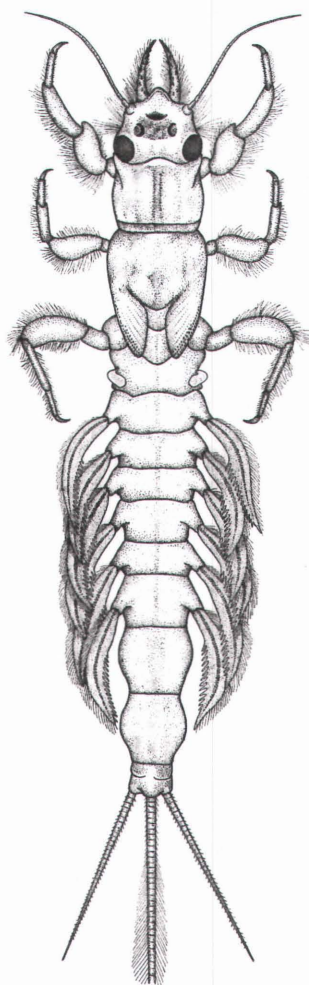


Figure 261. *Ephoron album*, dorsal habitus of larva.

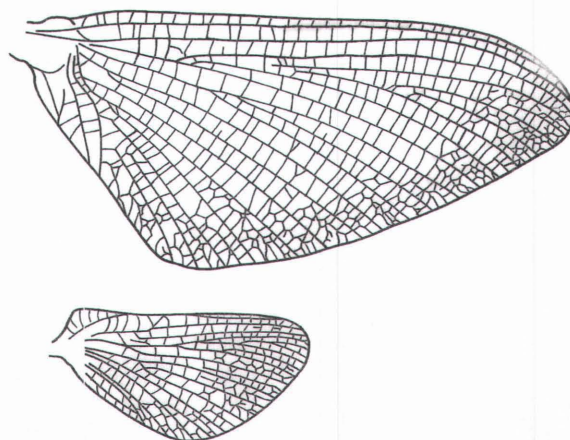


Figure 262. *Ephoron album*, wings.

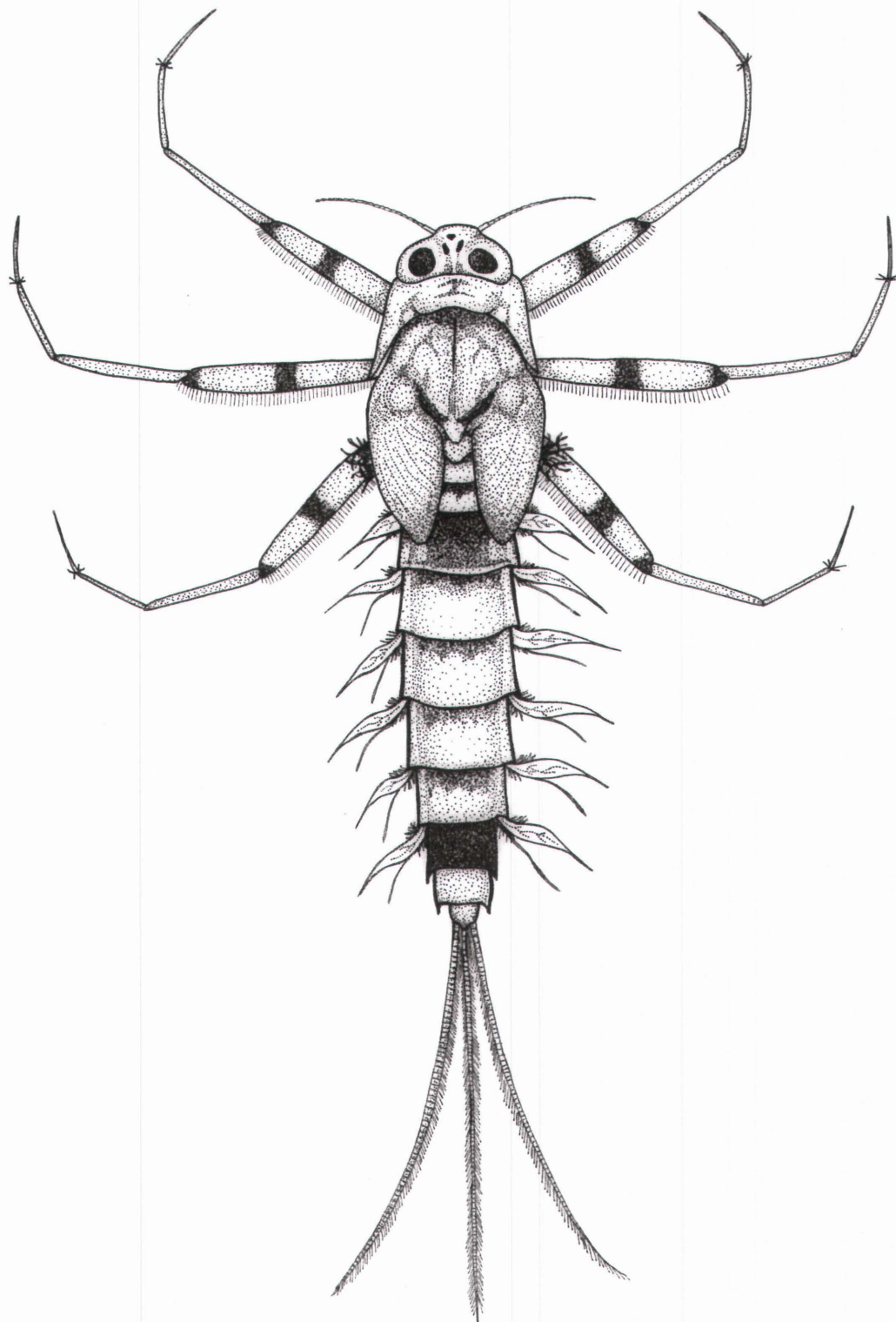


Figure 263. *Pseudiron centralis*, dorsal habitus of larva.

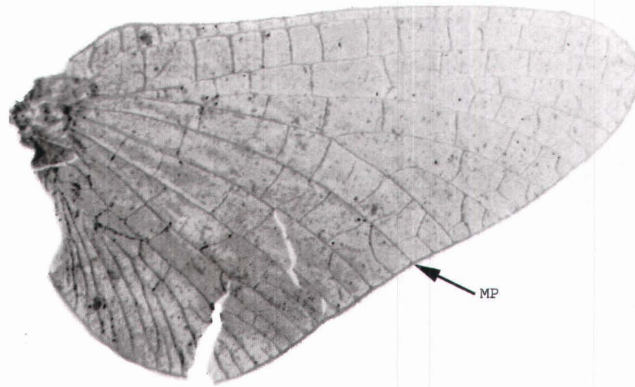


Figure 264. *Parametetus chelifera*, hind wing. The unforked vein MP is indicated.

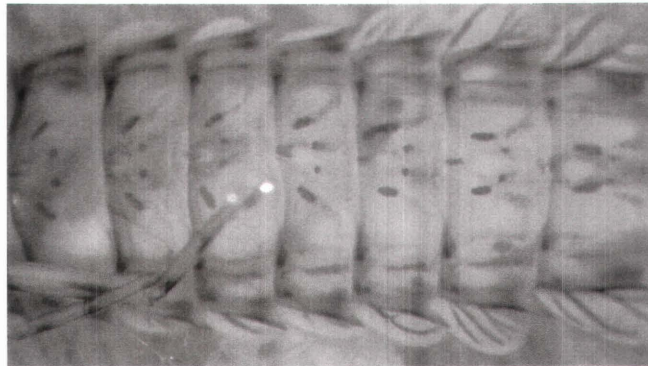


Figure 265. *Siphonurus alternatus*, larval abdominal sterna.

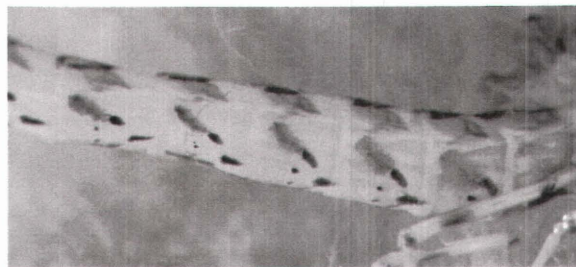


Figure 266. *Siphonurus alternatus*, male abdominal sterna.

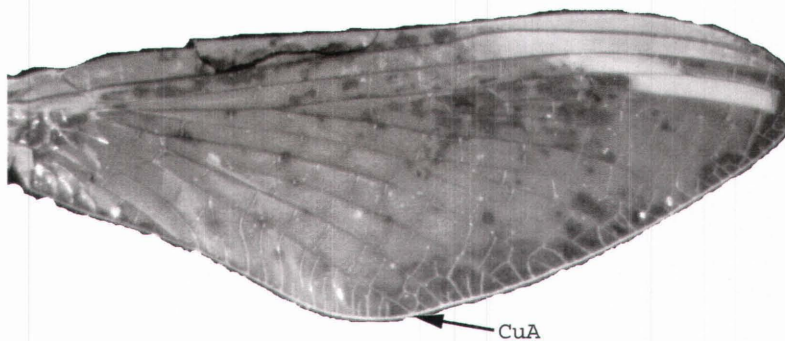


Figure 267. *Siphonurus alternatus*, fore wing. Vein CuA is indicated.

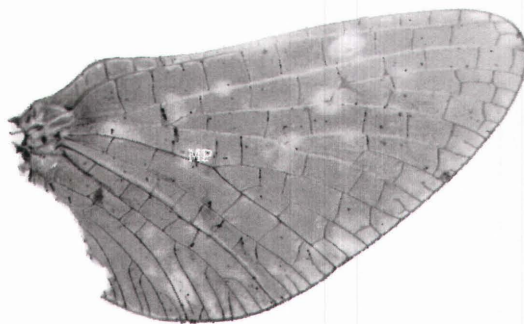


Figure 268. *Siphonurus alternatus*, hind wing.

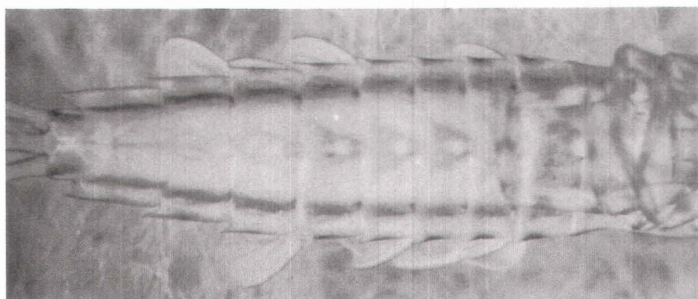


Figure 269. *Siphonurus sp. 1*, larval abdominal sterna.

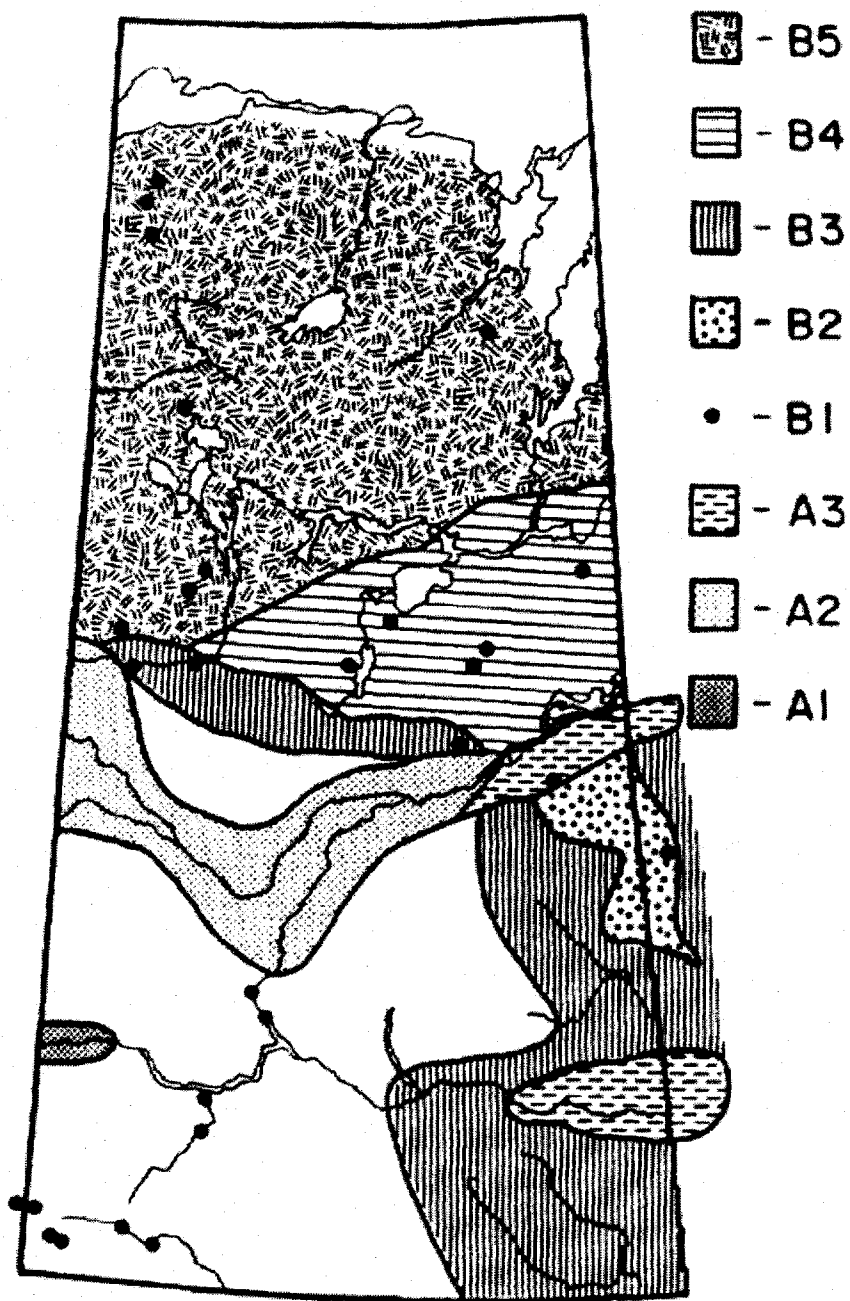


Figure 270. Approximate boundaries of distribution sub-zones of heptageniid mayflies in Saskatchewan (from Whiting and Sheard 1990).

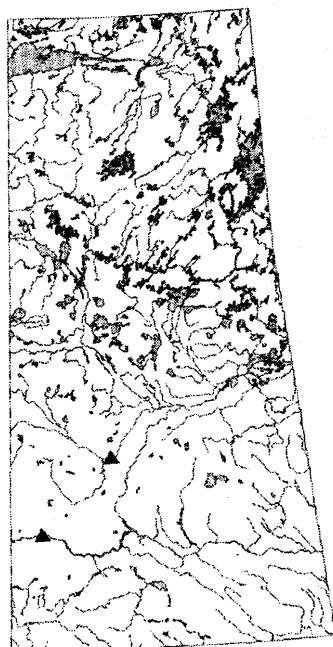


Figure 271. Distribution of *Analettris eximia*.

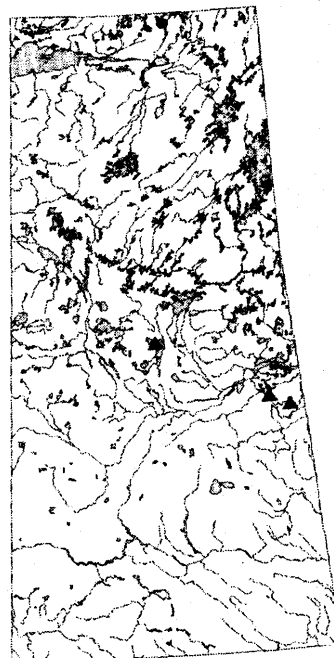


Figure 273. Distribution of *Ameletus subnotatus*.

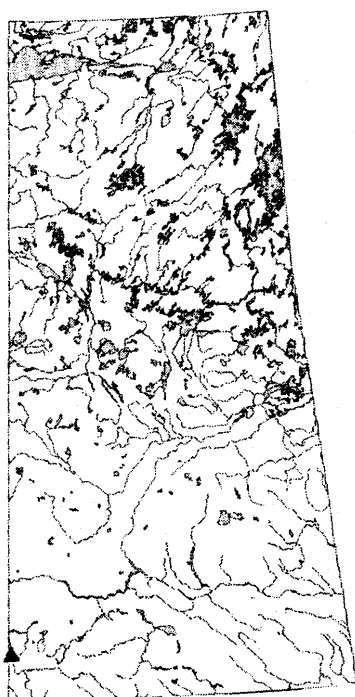


Figure 272. Distribution of *Ameletus oregonensis*

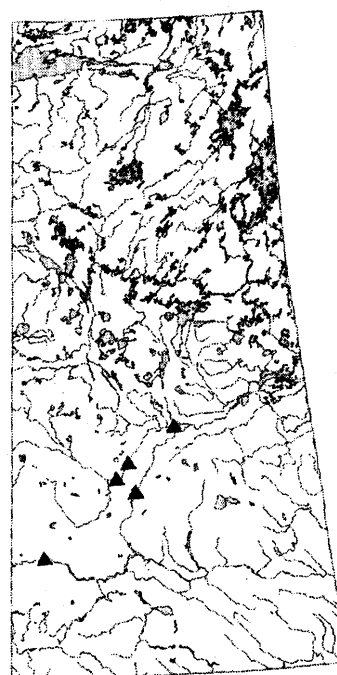


Figure 274. Distribution of *Ametropus neavei*.

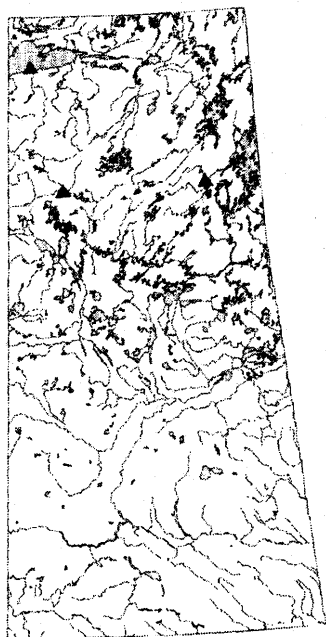


Figure 275. Distribution of *Arthroplea bipunctata*.



Figure 277. Distribution of *Acentrella parvula*.

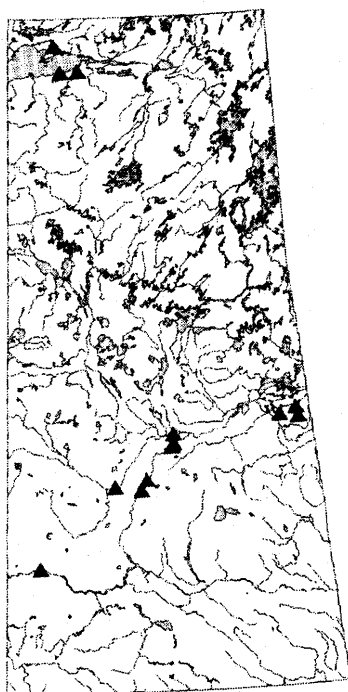


Figure 276. Distribution of *Acentrella insignificans*.

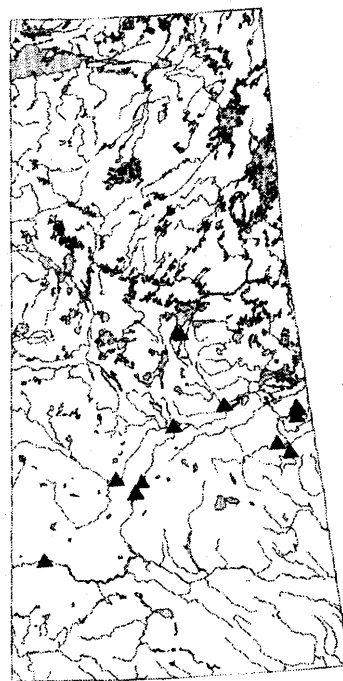


Figure 278. Distribution of *Acentrella turbida*.

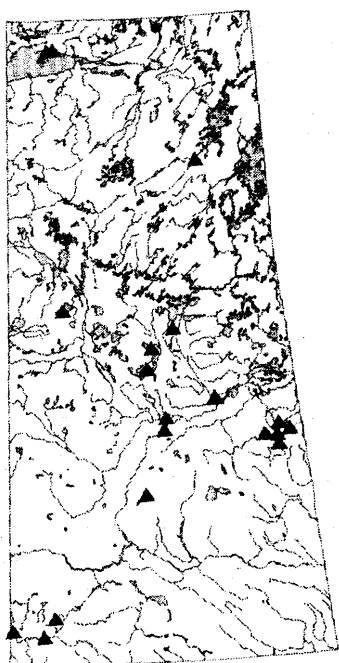


Figure 279. Distribution of *Acerpenna pygmaea*.



Figure 281. Distribution of *Apobaetis indepressus*.

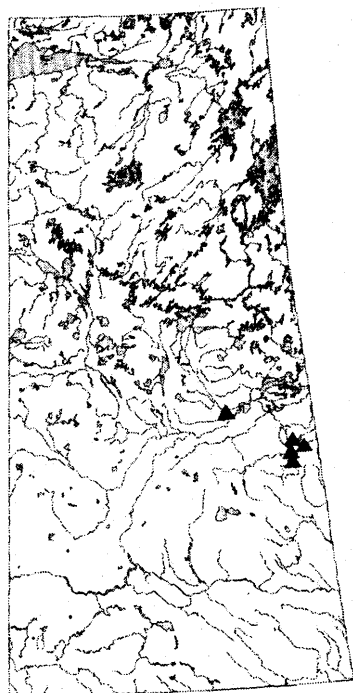


Figure 280. Distribution of *Acerpenna sp. 1*.

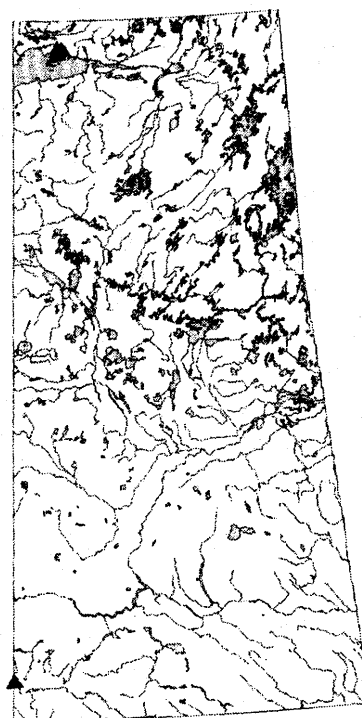


Figure 282. Distribution of *Baetis bicaudatus*.

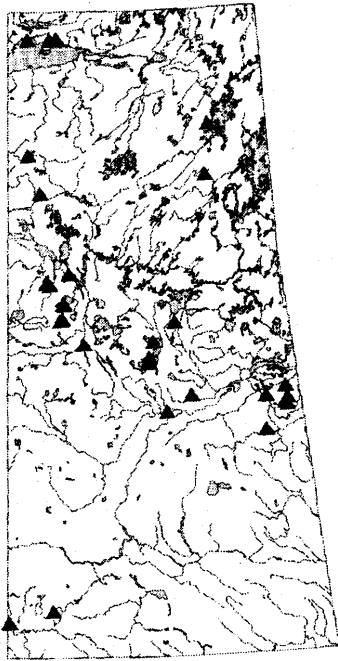


Figure 283. Distribution of *Baetis brunneicolor*.

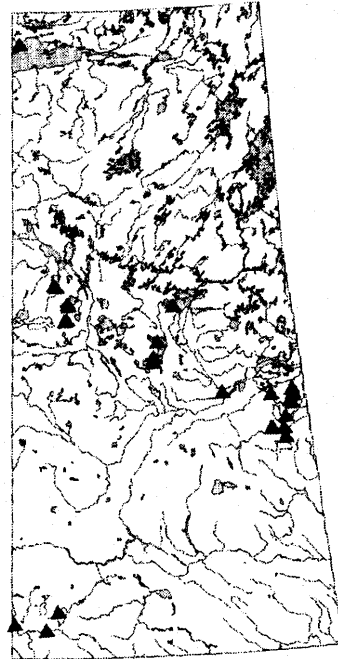


Figure 285. Distribution of *Baetis flavistriga*.

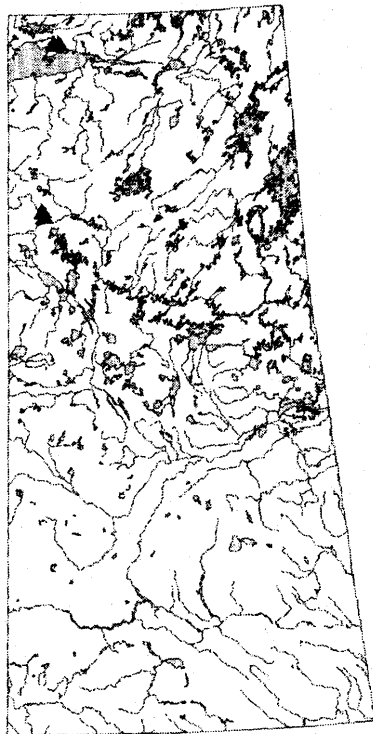


Figure 284. Distribution of *Baetis bundyae*.

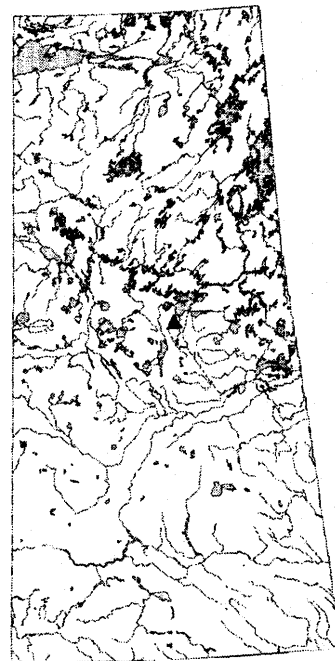


Figure 286. Distribution of *Baetis hudsonicus*.

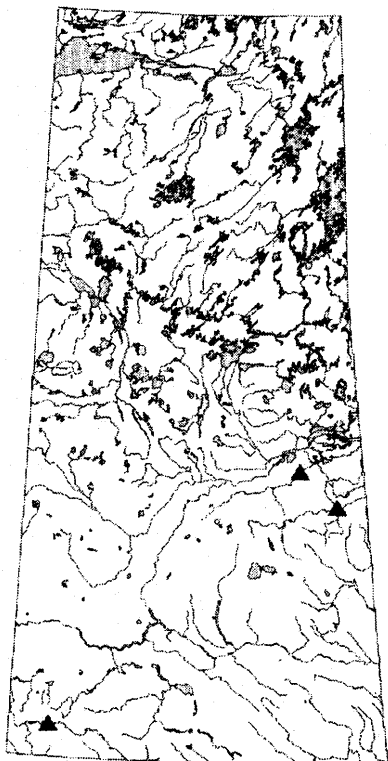


Figure 287. Distribution of *Baetis intercalaris*.

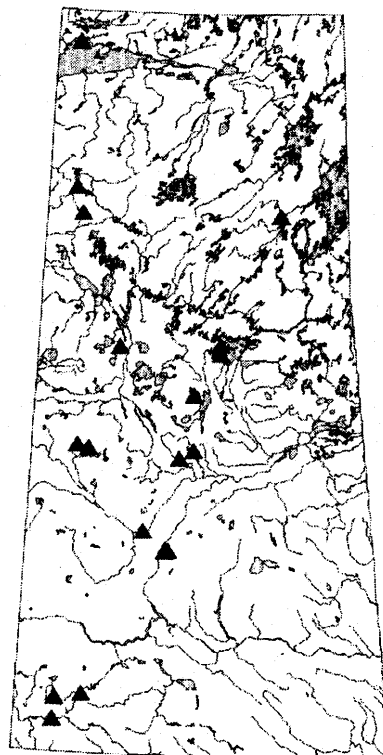


Figure 289. Distribution of *Callibaetis ferrugineus*.

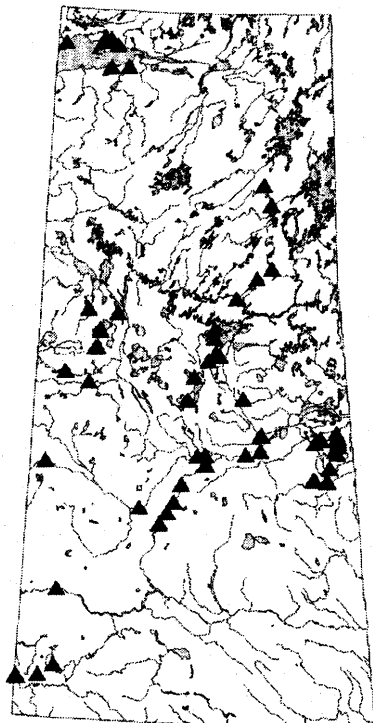


Figure 288. Distribution of *Baetis tricaudatus*.

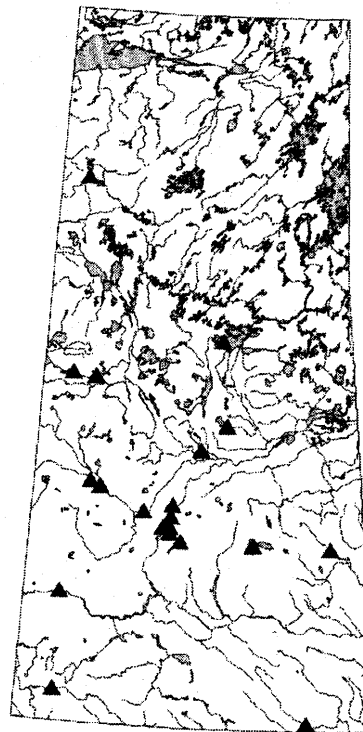


Figure 290. Distribution of *Callibaetis pallidus*.

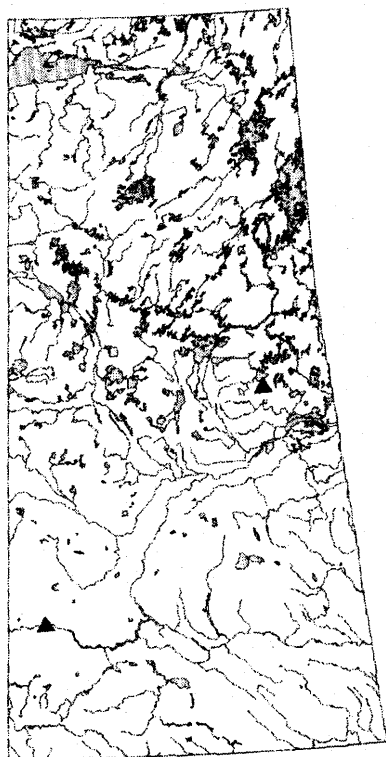


Figure 291. Distribution of *Camelobaetidius warreni*.

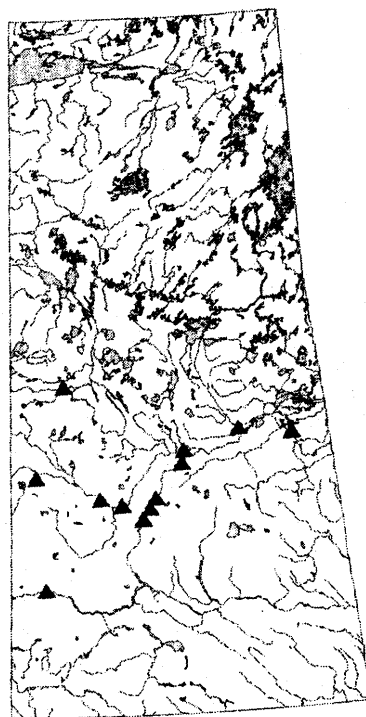


Figure 293. Distribution of *Centropilum bifurcatum*.

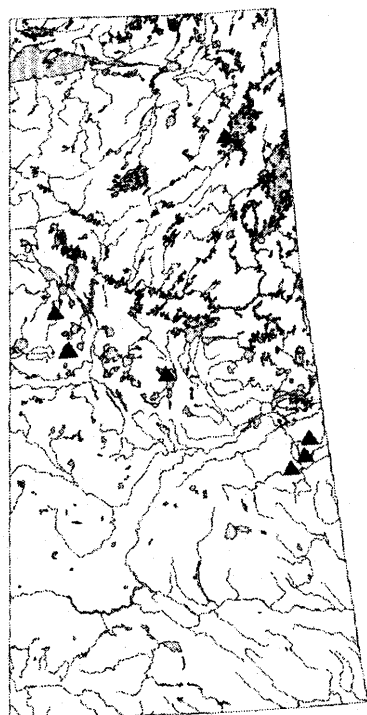


Figure 292. Distribution of *Centropilum album*.

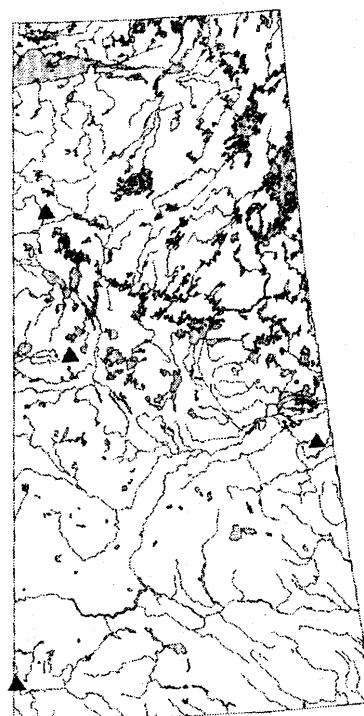


Figure 294. Distribution of *Centropilum conturbatum*.

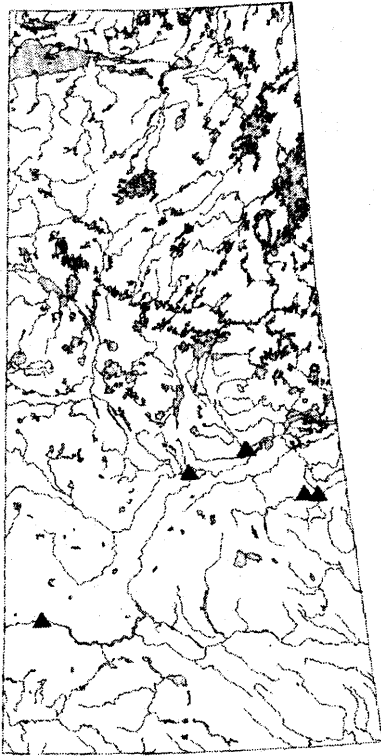


Figure 295. Distribution of *Centropilum victoriae*.

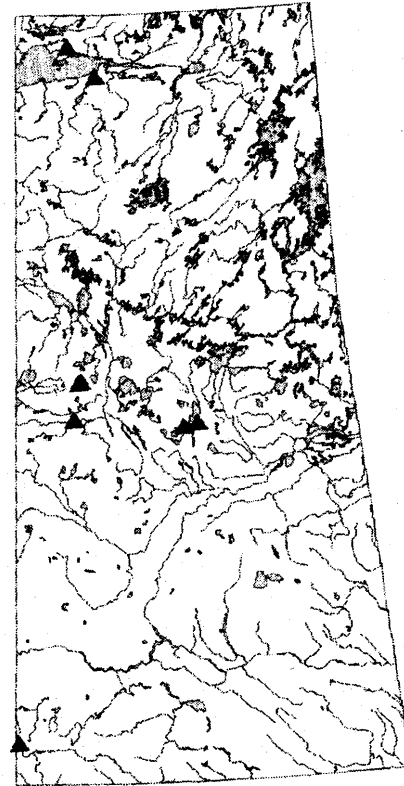


Figure 297. Distribution of *Diphetero hageni*.

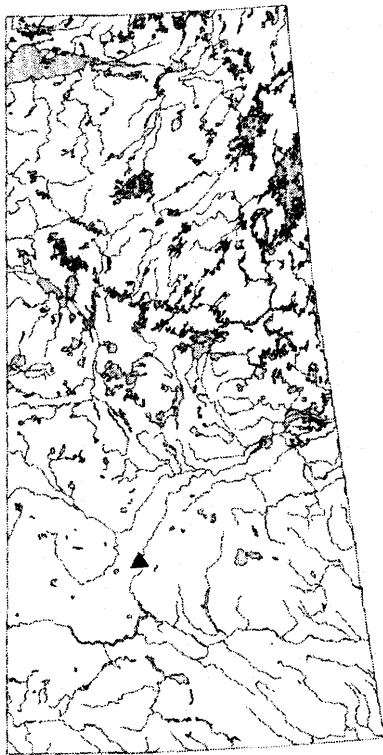


Figure 296. Distribution of *Cloeon dipterum*.



Figure 298. Distribution of *Fallceon quilleri*.

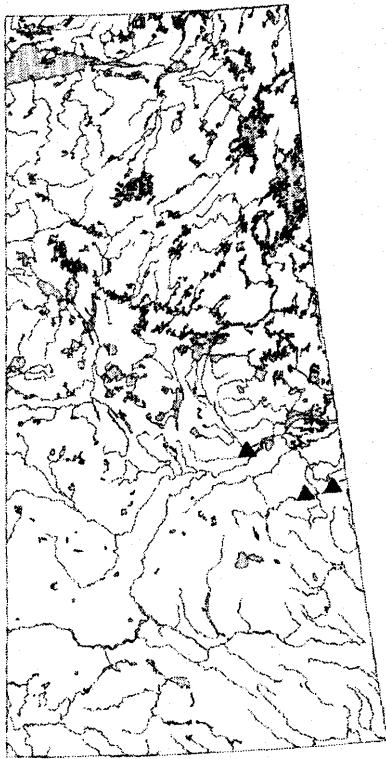


Figure 299. Distribution of *Plauditus cestus*.

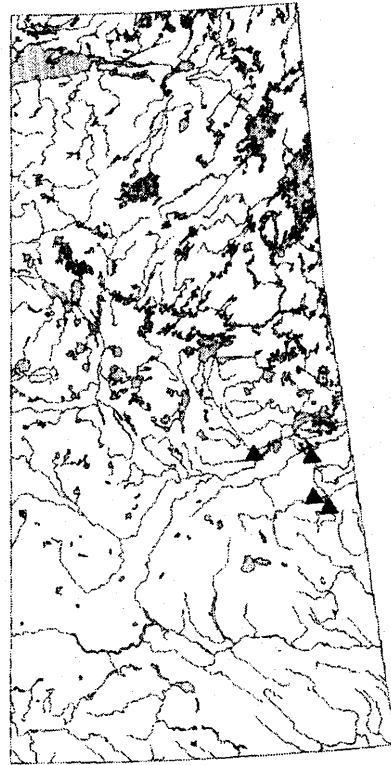


Figure 301. Distribution of *Plauditus gloveri*.

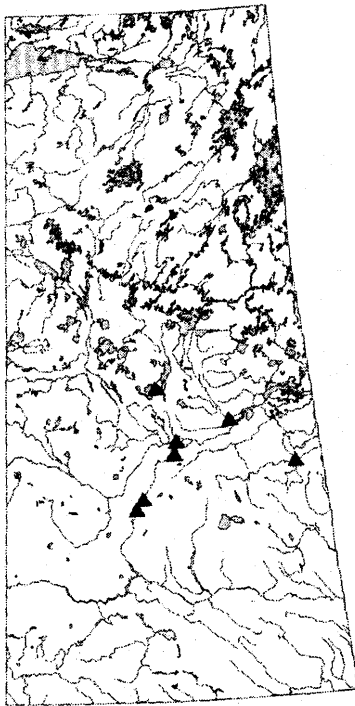


Figure 300. Distribution of *Plauditus dubius*.

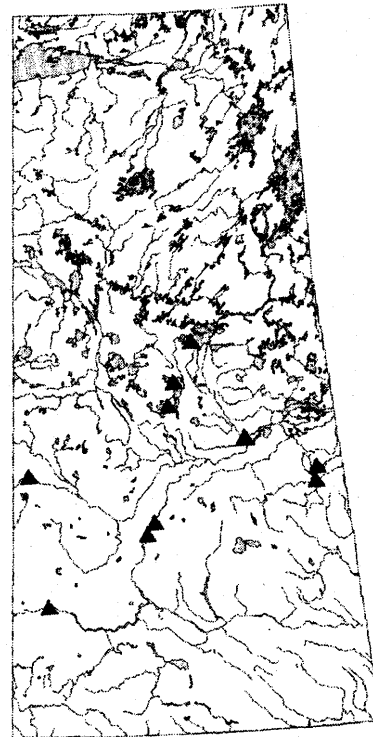


Figure 302. Distribution of *Plauditus punctiventris*.

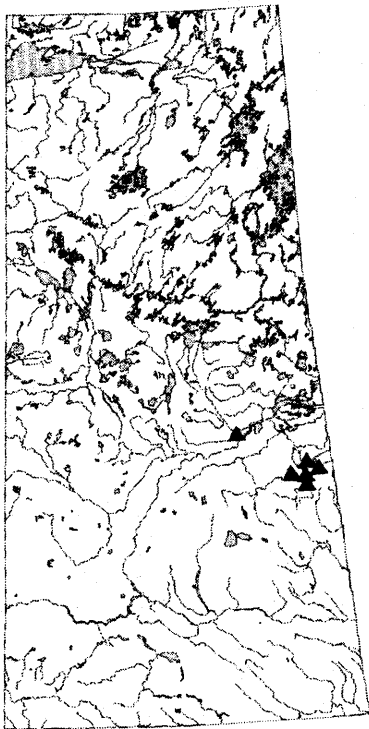


Figure 303. Distribution of *Plauditus virilis*.



Figure 305. Distribution of *Procloeon irrubrum*.

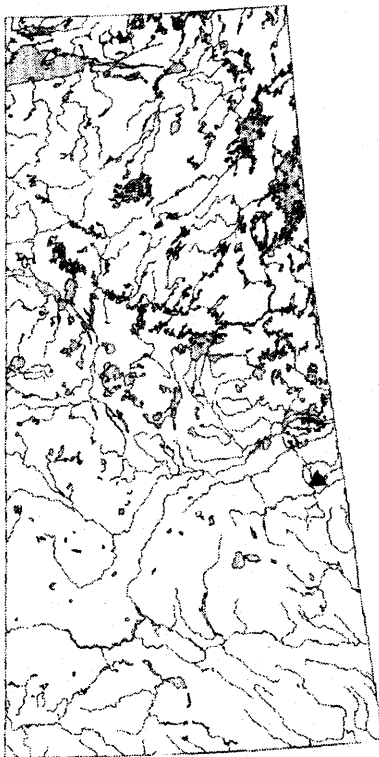


Figure 304. Distribution of *Procloeon ingens*.



Figure 306. Distribution of *Procloeon pennulatum*.

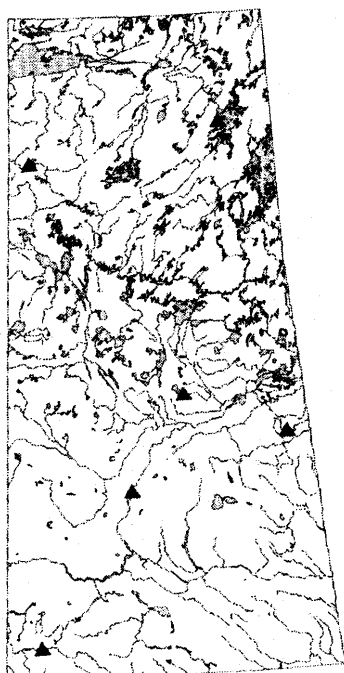


Figure 307. Distribution of *Procloeon quaesitum*.

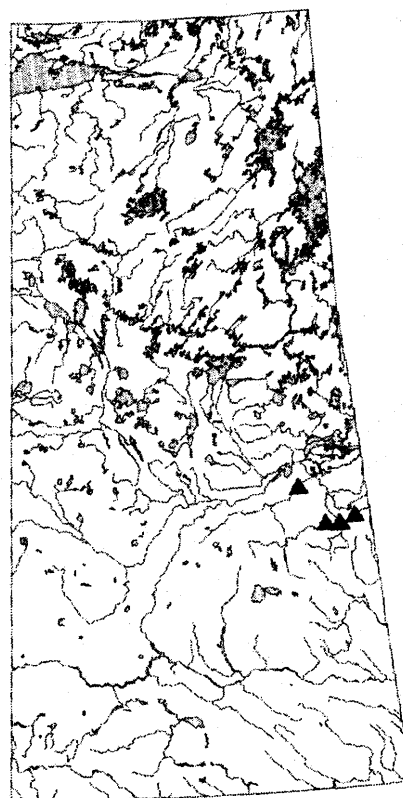


Figure 309. Distribution of *Procloeon rufostrigatum*.

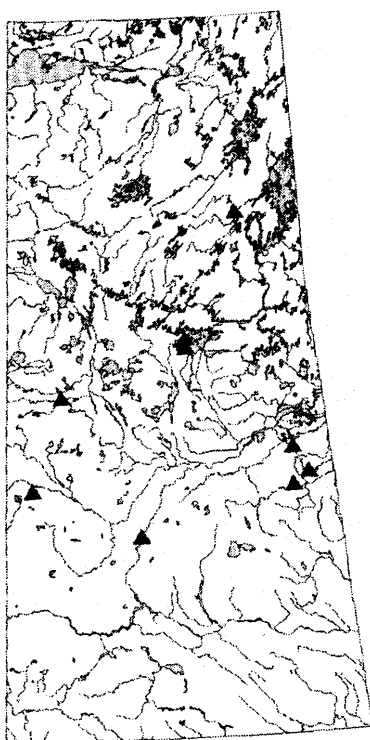


Figure 308. Distribution of *Procloeon rubropictum*.



Figure 310. Distribution of *Procloeon simplex*.

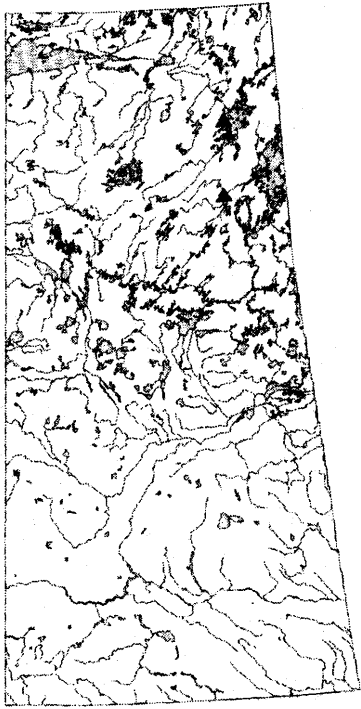


Figure 311. Distribution of *Procloeon* sp. 1.

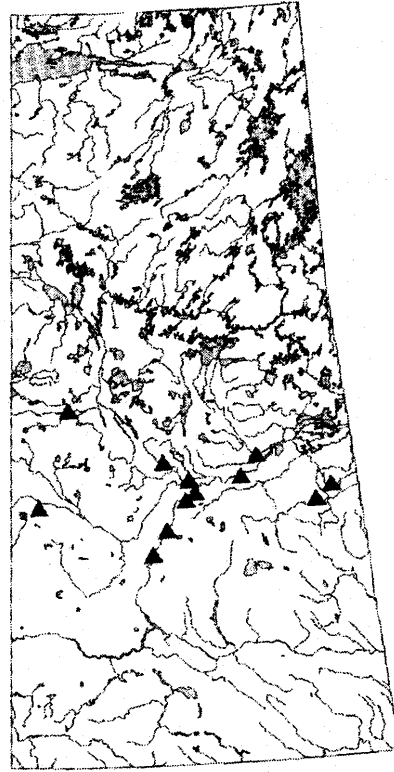


Figure 313. Distribution of *Pseudocloeon propinquum*.

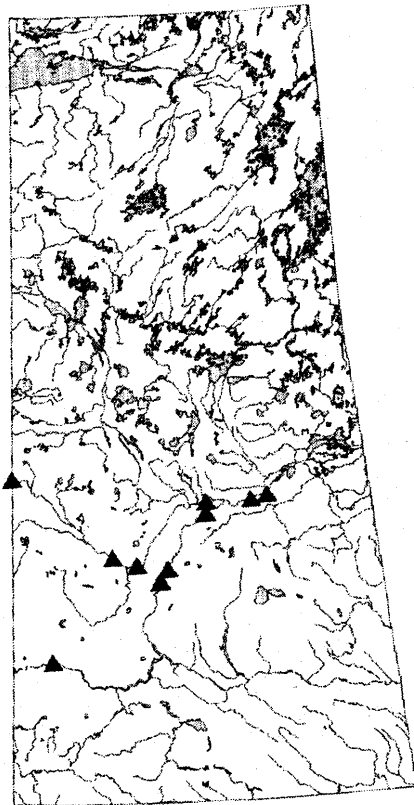


Figure 312. Distribution of *Pseudocloeon dardanum*.

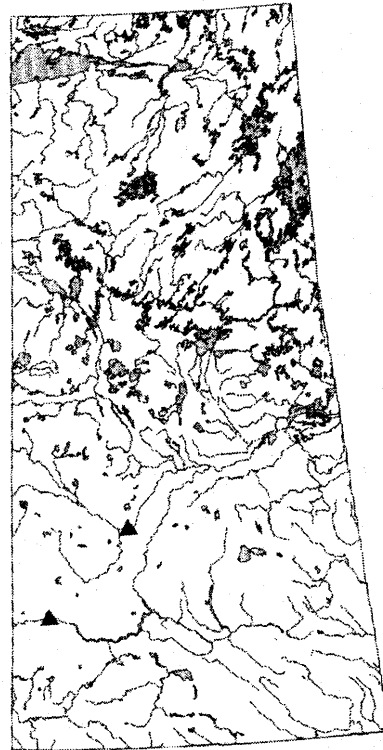


Figure 314. Distribution of *Baetisca lacustris*.

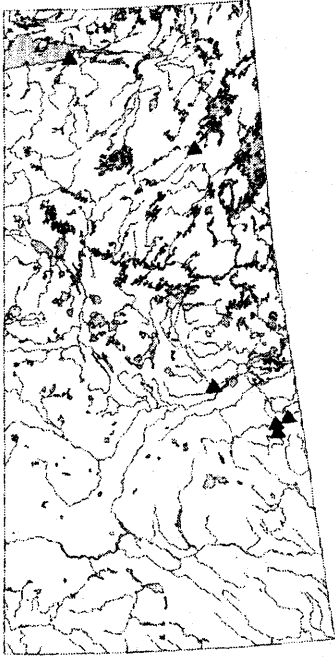


Figure 315. Distribution of *Baetisca laurentina*.

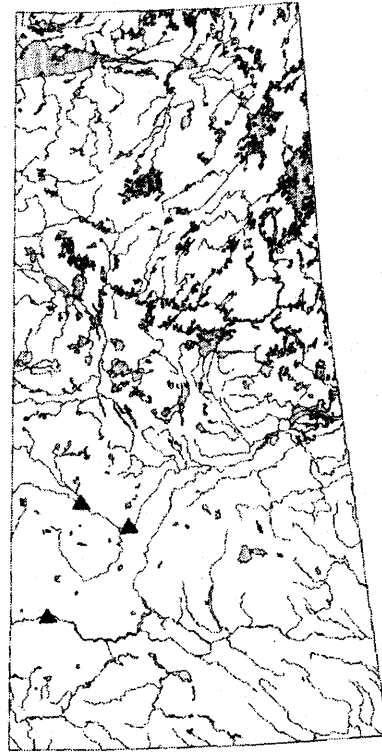


Figure 317. Distribution of *Brachycercus prudens*.

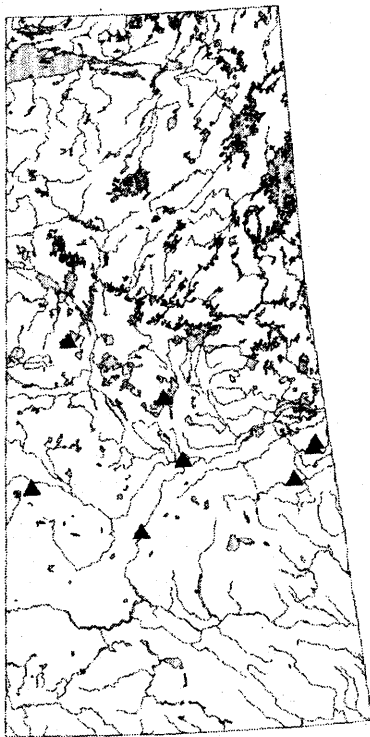


Figure 316. Distribution of *Brachycercus edmundsi*.

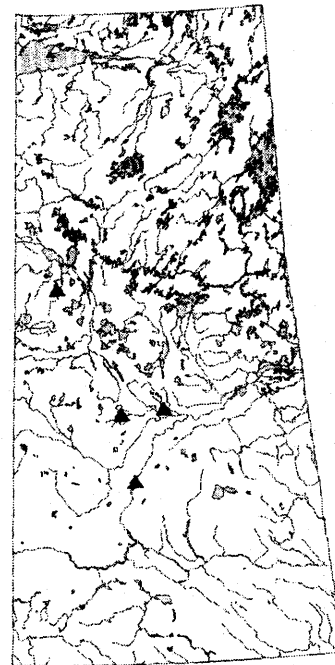


Figure 318. Distribution of *Caenis amica*.

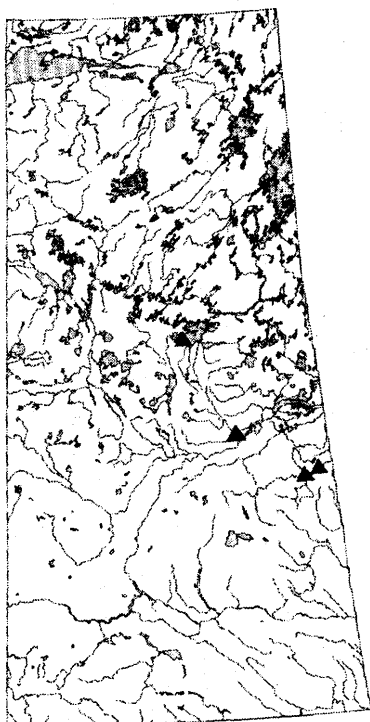


Figure 319. Distribution of *Caenis hilaris*.

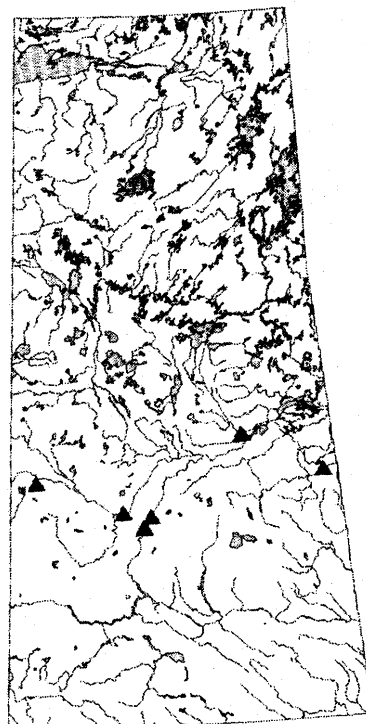


Figure 321. Distribution of *Caenis tardata*.

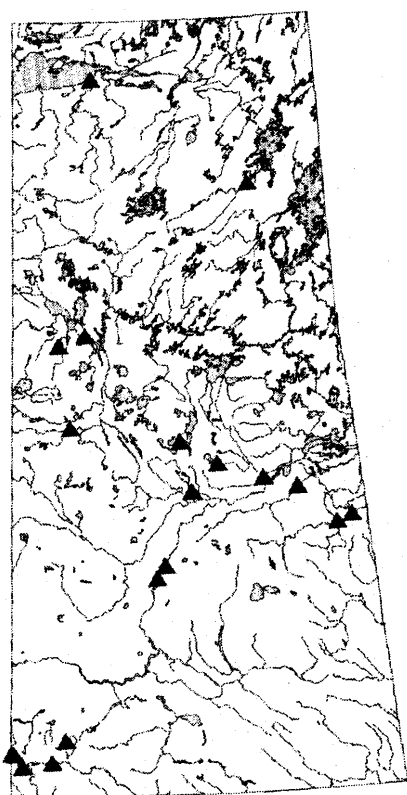


Figure 320. Distribution of *Caenis latipennis*.

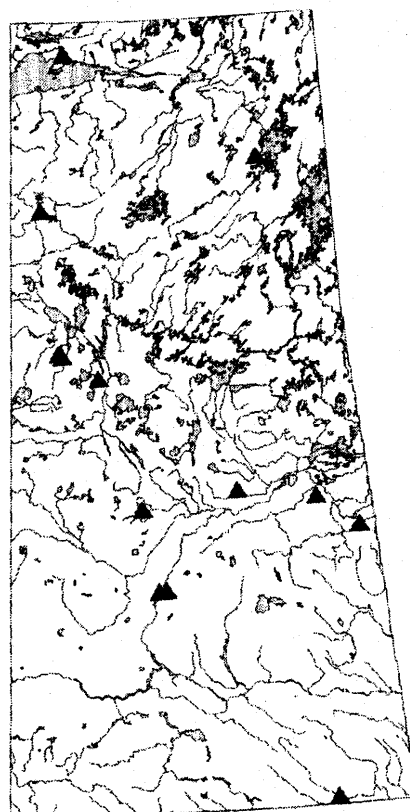


Figure 322. Distribution of *Caenis youngi*.

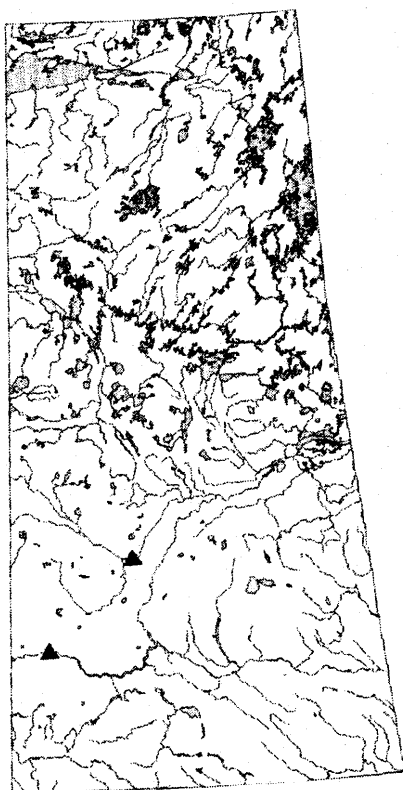


Figure 323. Distribution of *Cercobrachys cree*.

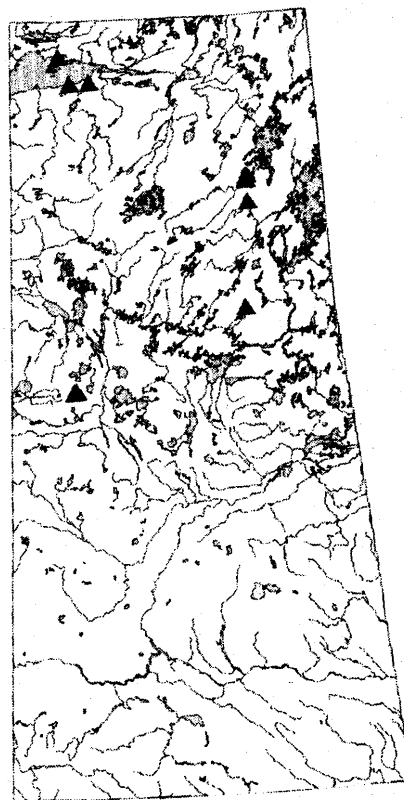


Figure 325. Distribution of *Drunella grandis*.

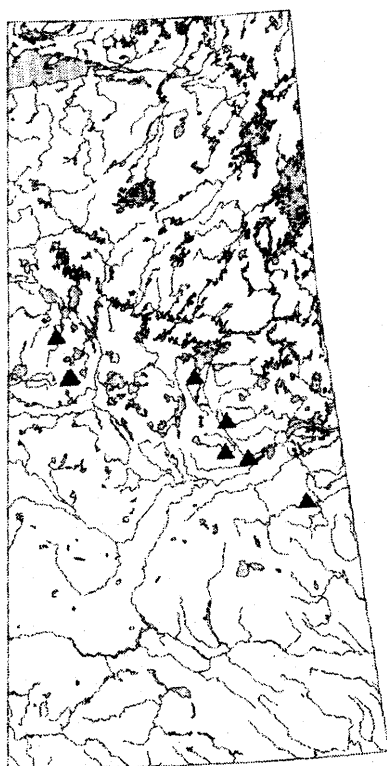


Figure 324. Distribution of *Dannella simplex*.

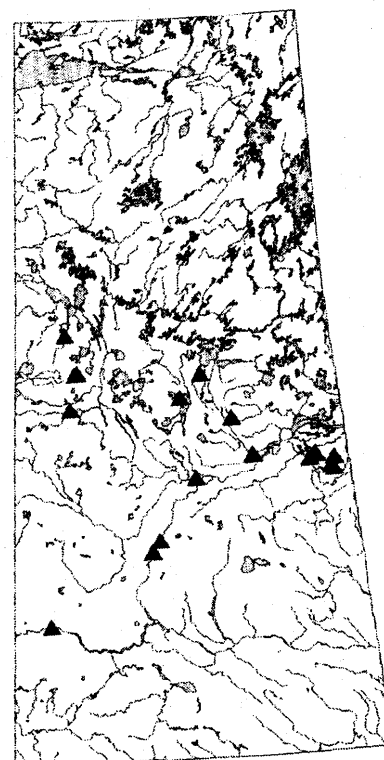


Figure 326. Distribution of *Ephemerella inermis*.

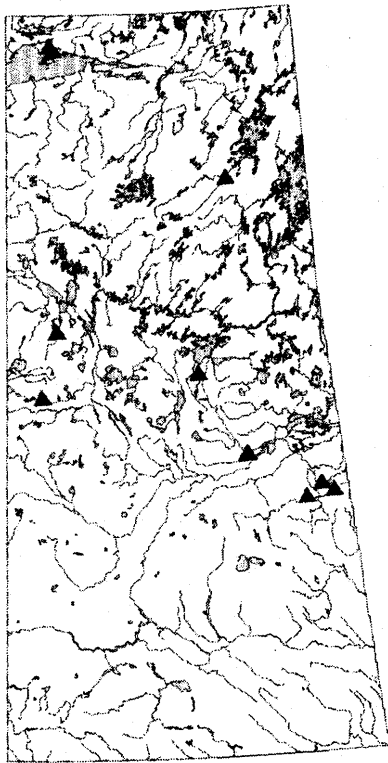


Figure 327. Distribution of *Ephemerella needhami*.

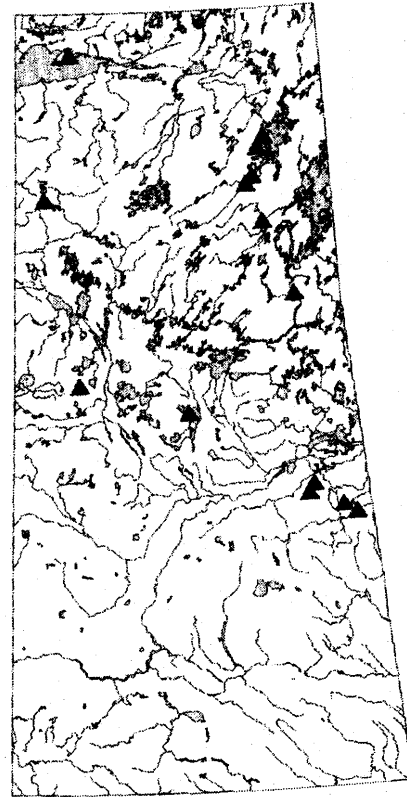


Figure 329. Distribution of *Eurylophella temporalis*.



Figure 328. Distribution of *Eurylophella bicolor*.

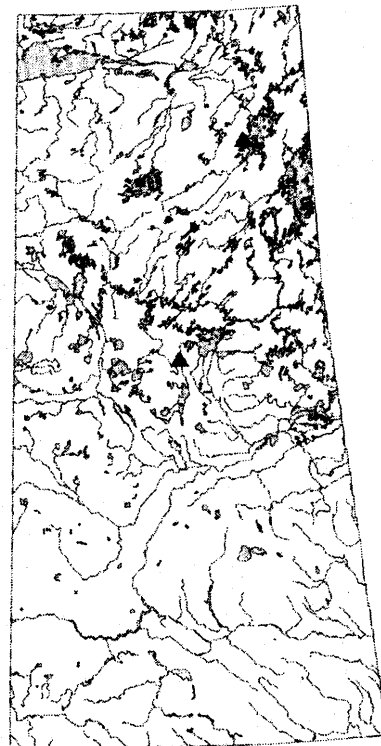


Figure 330. Distribution of *Serratella serrata*.

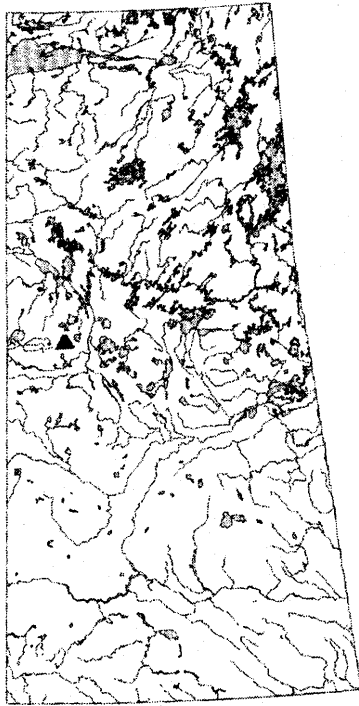


Figure 331. Distribution of *Serratella tibialis*.

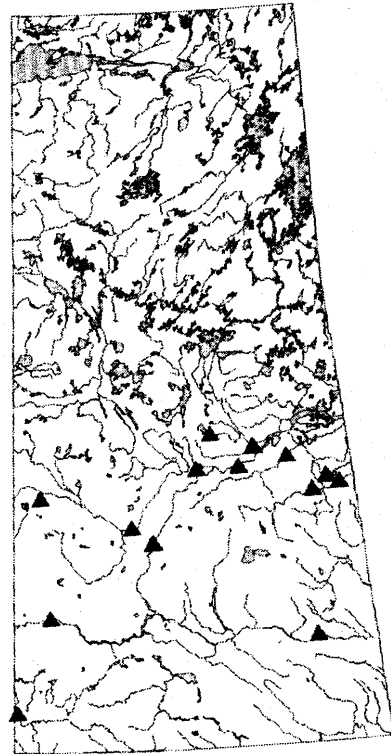


Figure 333. Distribution of *Hexagenia limbata*.

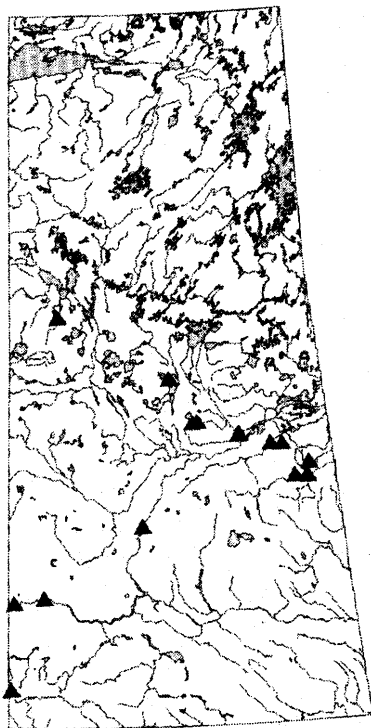


Figure 332. Distribution of *Ephemera simulans*.

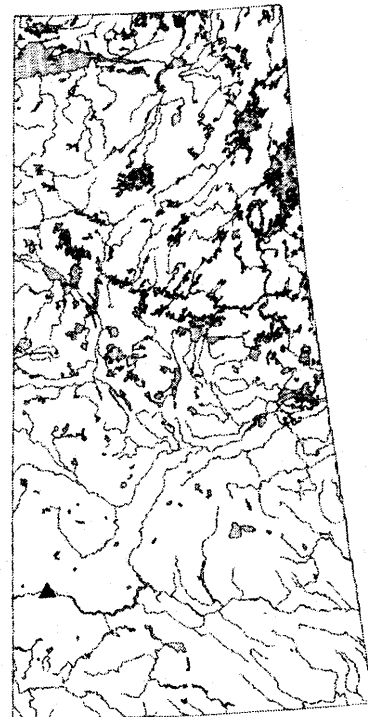


Figure 334. Distribution of *Acanthomola pubescens*.

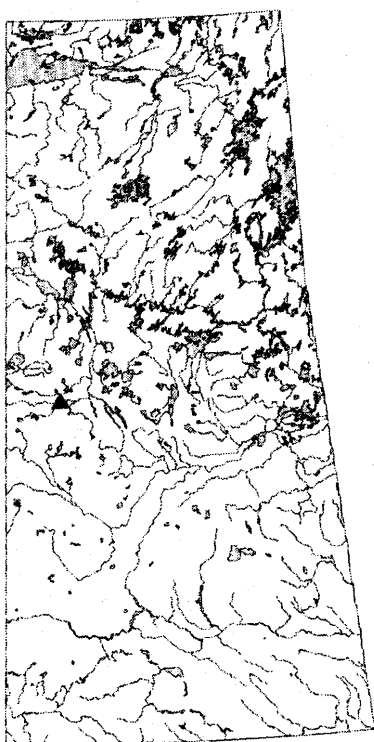


Figure 335. Distribution of *Cinygmula* sp.

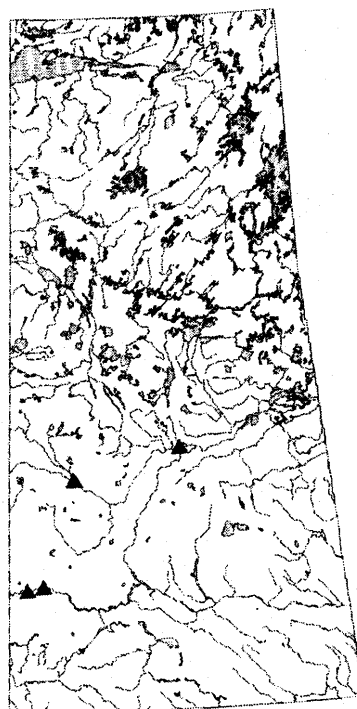


Figure 337. Distribution of *Heptagenia adaequata*.

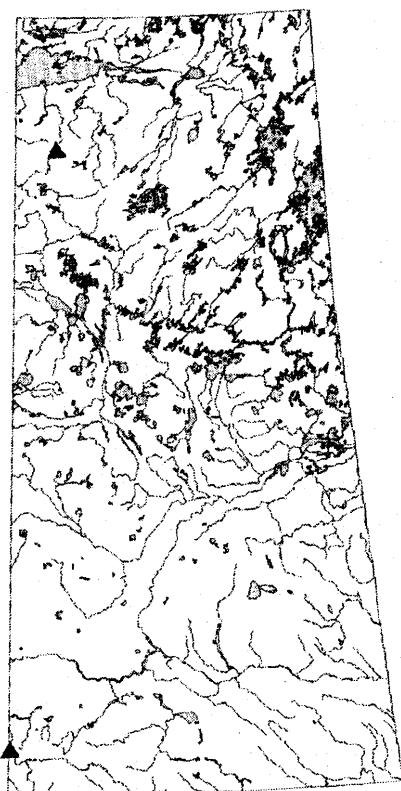


Figure 336. Distribution of *Epeorus longimanus*.

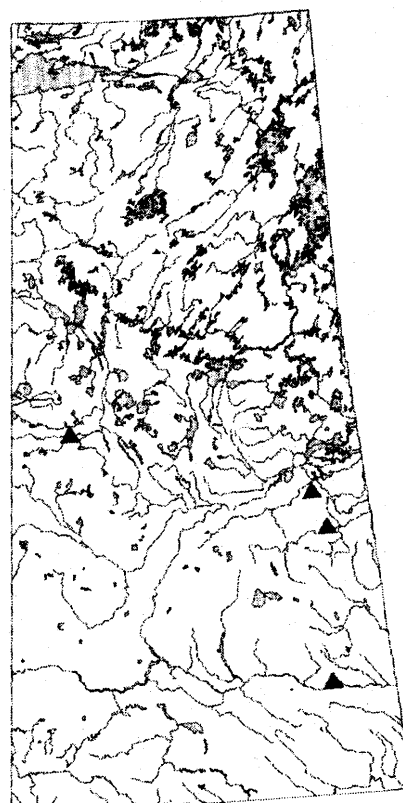


Figure 338. Distribution of *Heptagenia diabasia*.

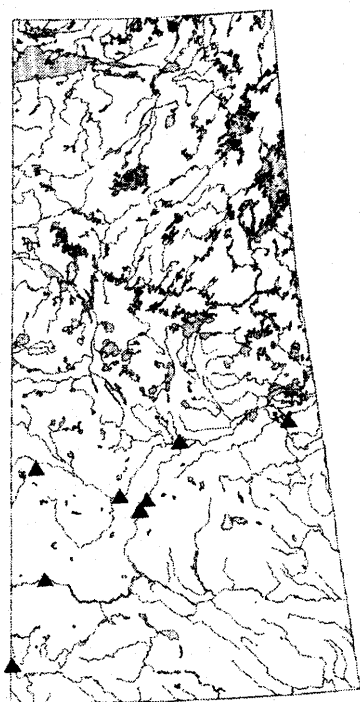


Figure 339. Distribution of *Heptagenia elegantula*.

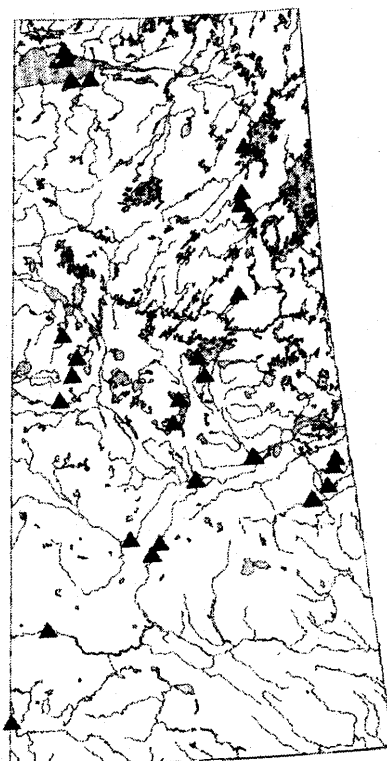


Figure 341. Distribution of *Heptagenia pulla*.

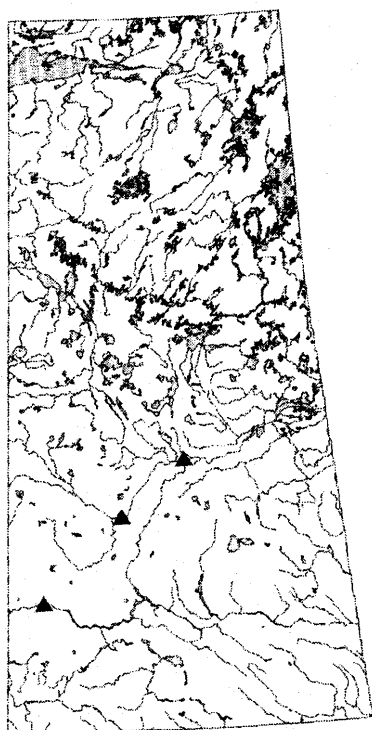


Figure 340. Distribution of *Heptagenia flavescens*.

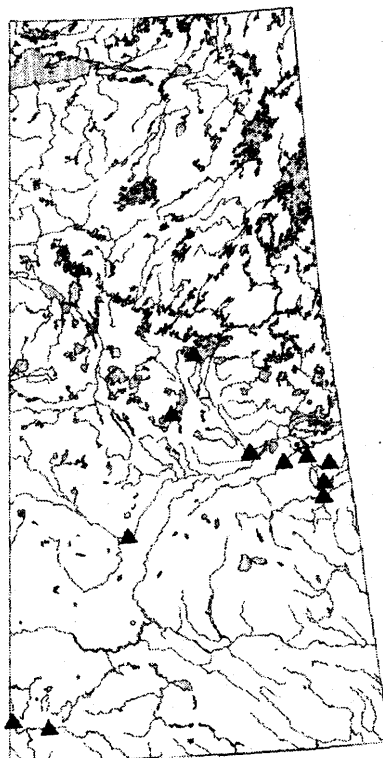


Figure 342. Distribution of *Leucrocuta hebe*.

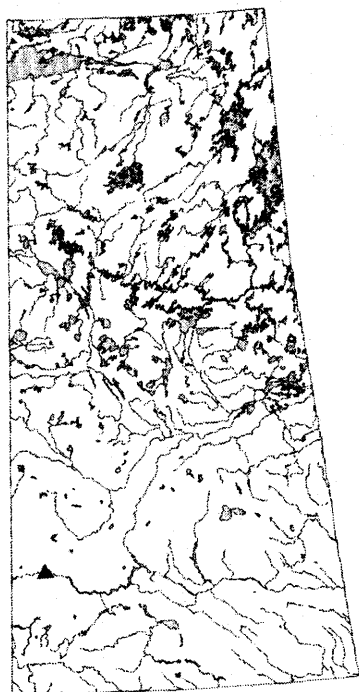


Figure 343. Distribution of *Leucrocuta maculipennis*.

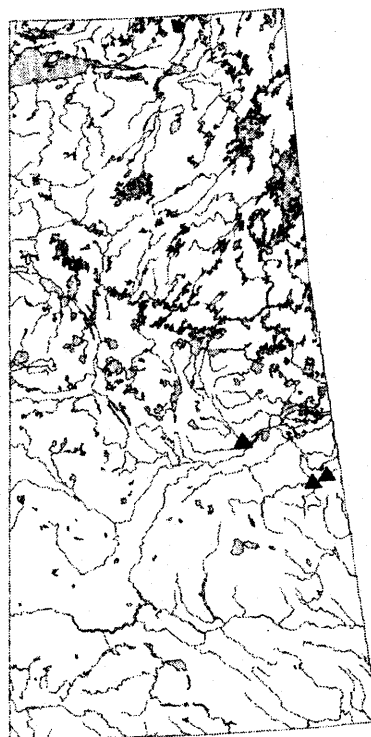


Figure 345. Distribution of *Nixe inconspicua*.

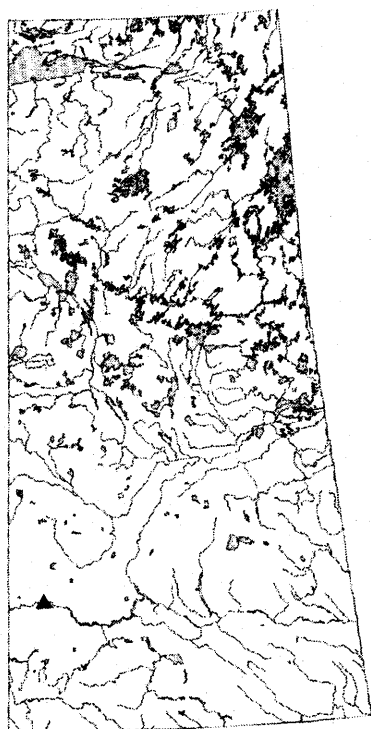


Figure 344. Distribution of *Macadunnoa nipawinia*.

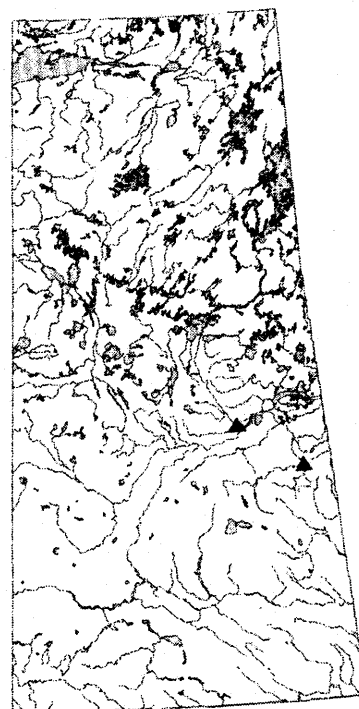


Figure 346. Distribution of *Nixe lucidipennis*.

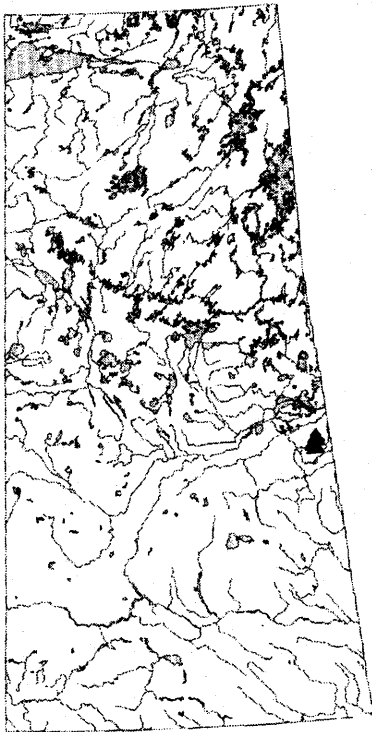


Figure 347. Distribution of *Nixe rusticalis*.

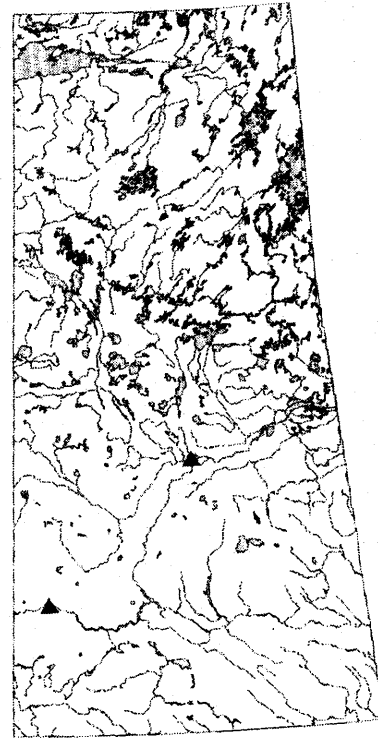


Figure 349. Distribution of *Raptioheptagenia cruentata*.

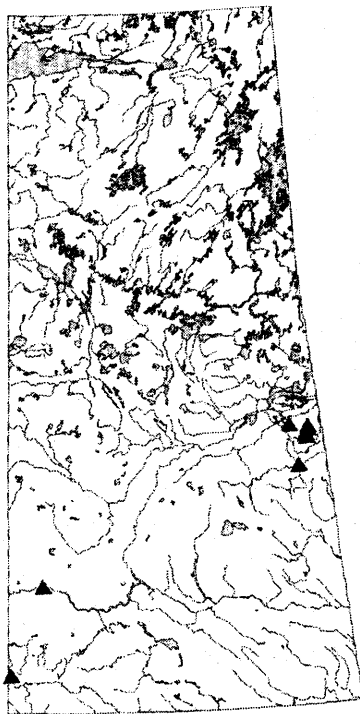


Figure 348. Distribution of *Nixe simplicoides*.

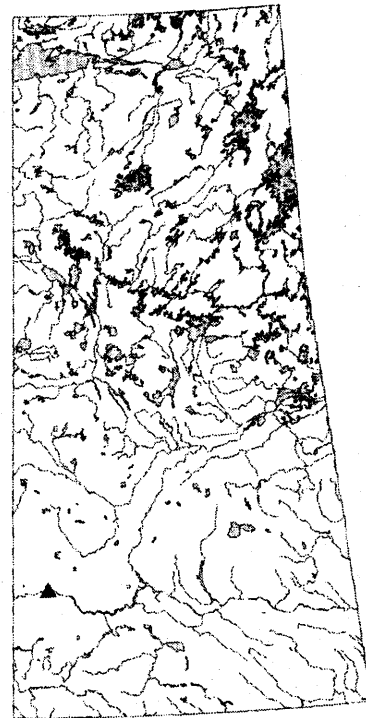


Figure 350. Distribution of *Rhithrogena undulata*.

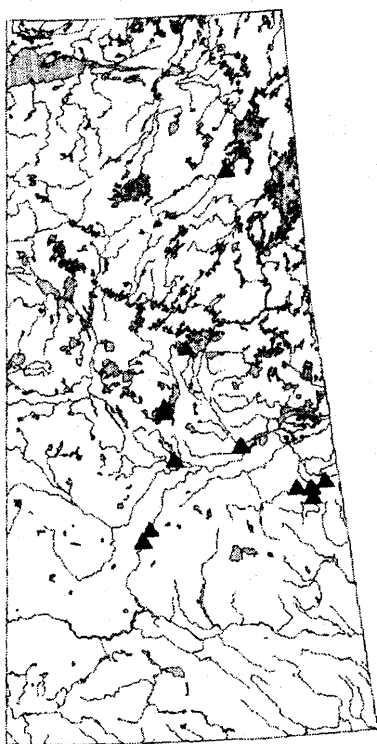


Figure 351. Distribution of *Stenacron interpunctatum*.

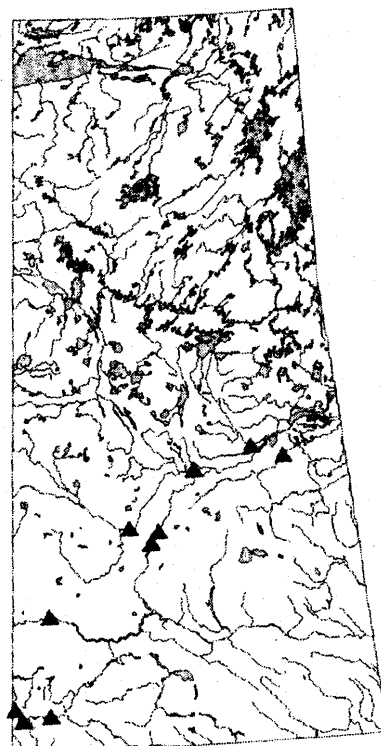


Figure 353. Distribution of *Stenonema terminatum*.

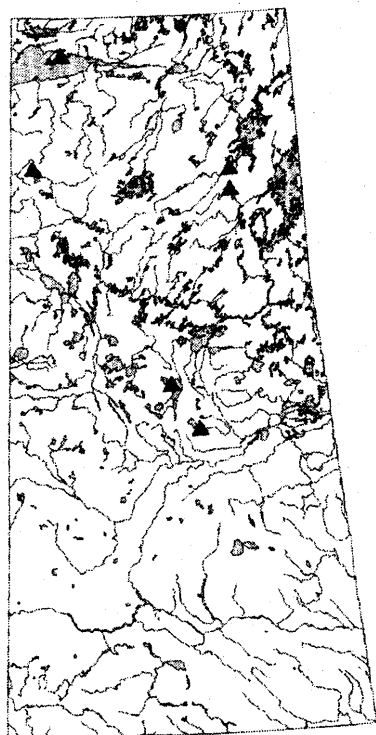


Figure 352. Distribution of *Stenonema femoratum*.



Figure 354. Distribution of *Stenonema vicarium*.

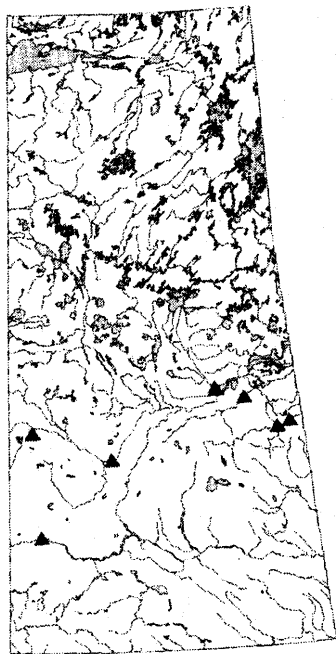


Figure 355. Distribution of *Isonychia campestris*.

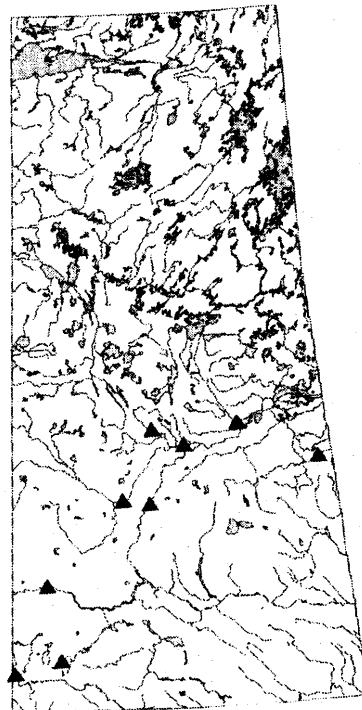


Figure 357. Distribution of *Tricorythodes minutus*.

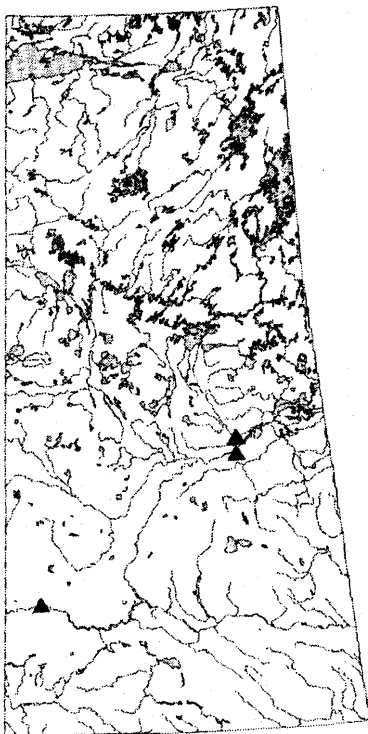


Figure 356. Distribution of *Asioplax corpulenta/edmundsi*.

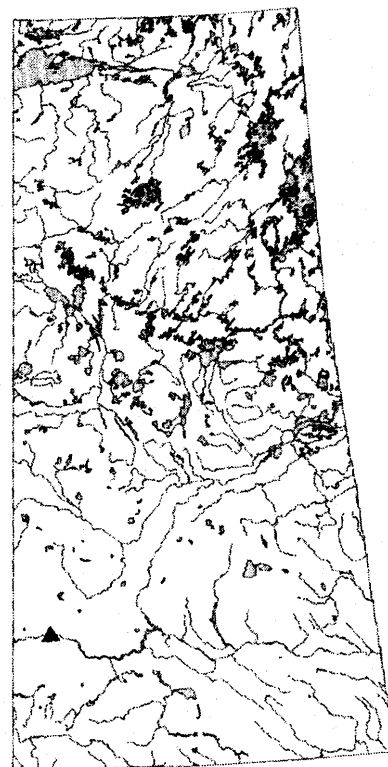


Figure 358. Distribution of *Choroterpes albiannulata*.

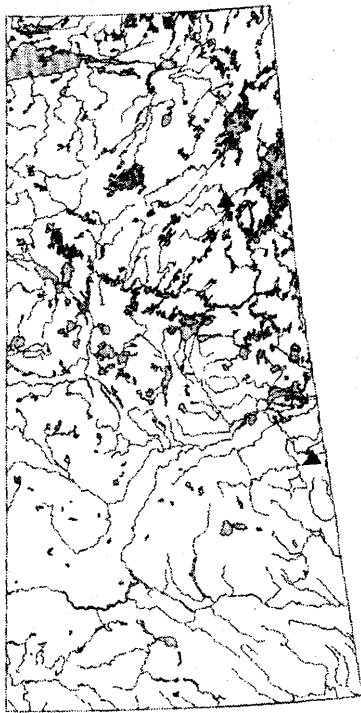


Figure 359. Distribution of *Leptophlebia cupida*.



Figure 361. Distribution of *Leptophlebia* spp. larvae.

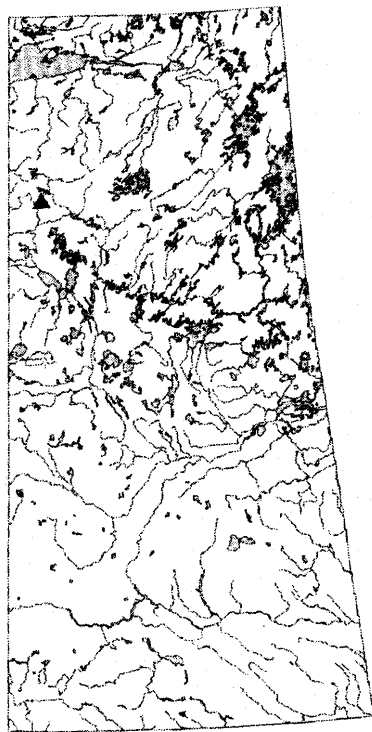


Figure 360. Distribution of *Leptophlebia nebulosa*.

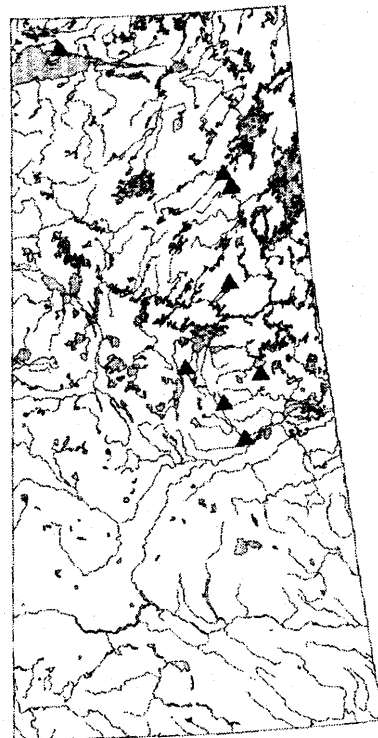


Figure 362. Distribution of *Paraleptophlebia adoptiva*.

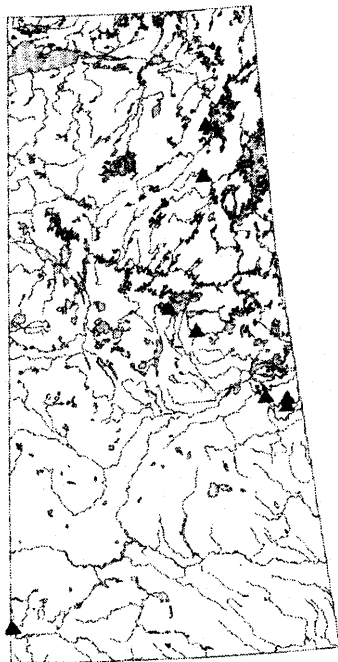


Figure 363. Distribution of *Paraleptophlebia debilis*.

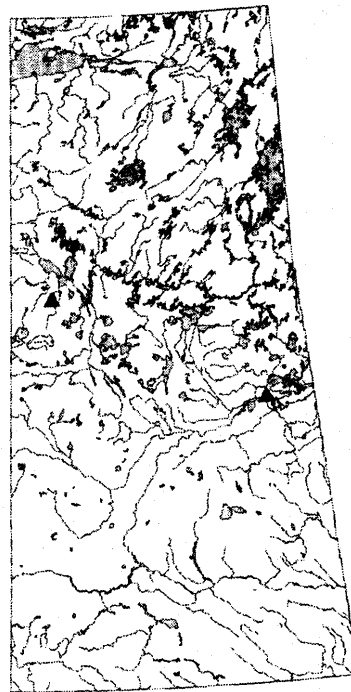


Figure 365. Distribution of *Paraleptophlebia praepecta*.

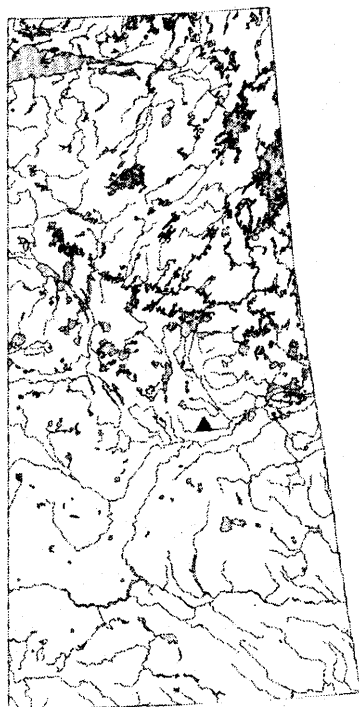


Figure 364. Distribution of *Paraleptophlebia moerens*.

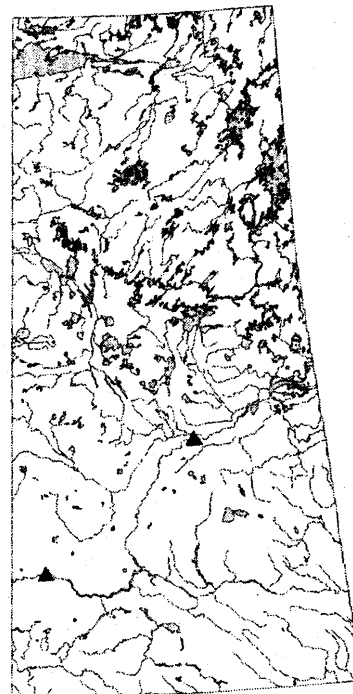


Figure 366. Distribution of *Traverella albertana*.

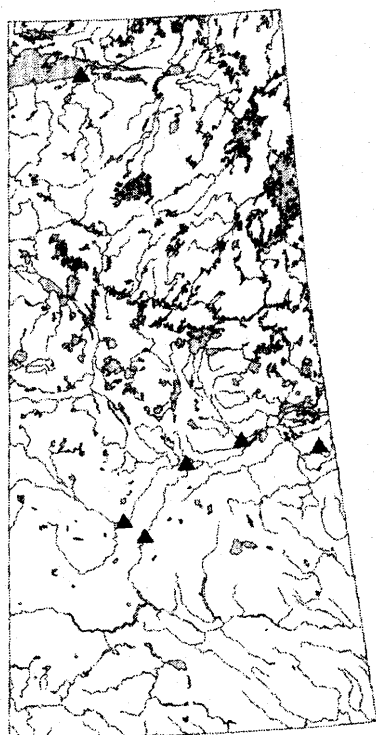


Figure 367. Distribution of *Metretopus borealis*.

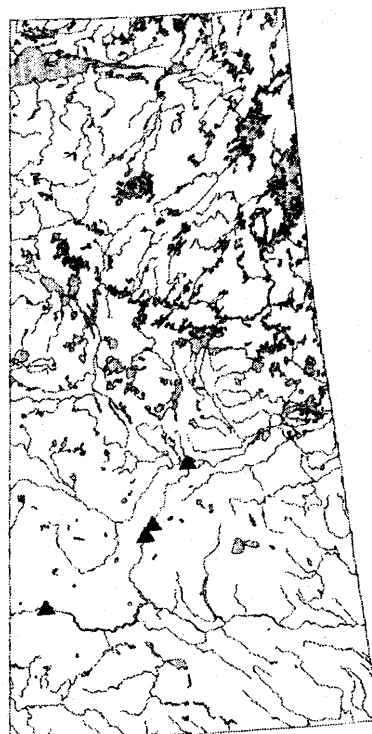


Figure 369. Distribution of *Siphloplecton interlineatum*.

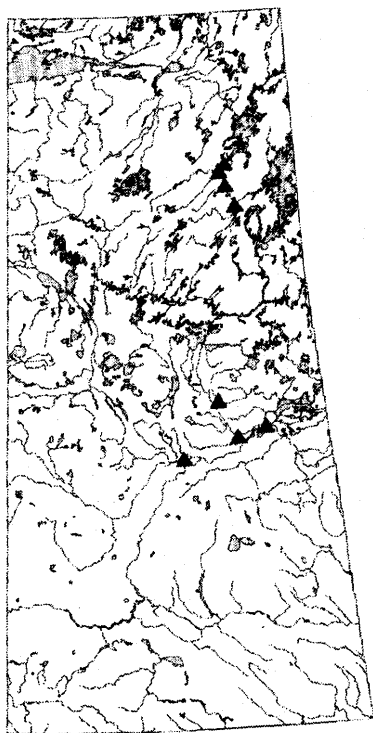


Figure 368. Distribution of *Siphloplecton basale*.

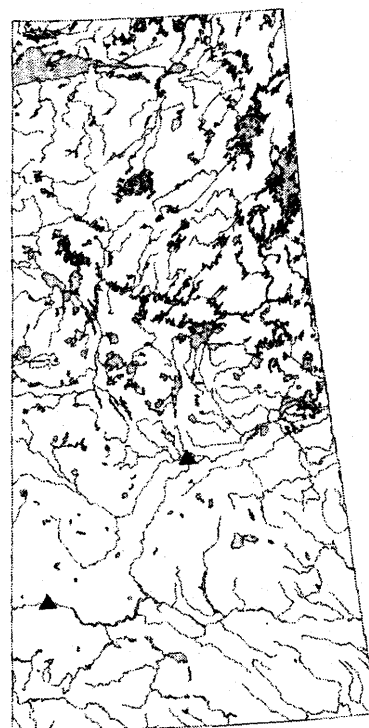


Figure 370. Distribution of *Lachlania saskatchewanensis*.

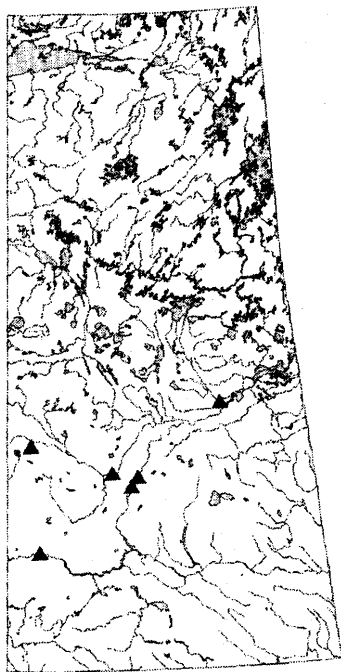


Figure 371. Distribution of *Ephoron album*.

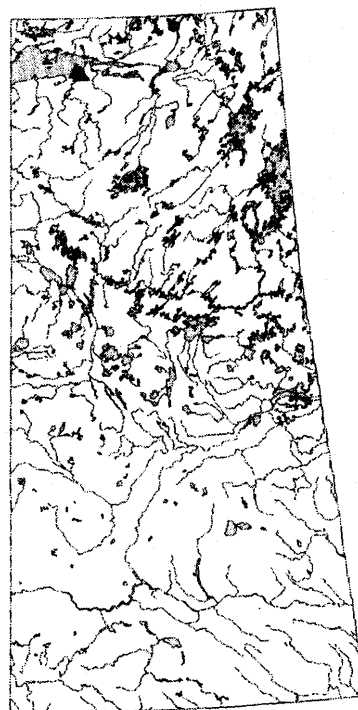


Figure 373. Distribution of *Parametetus chelifer*.

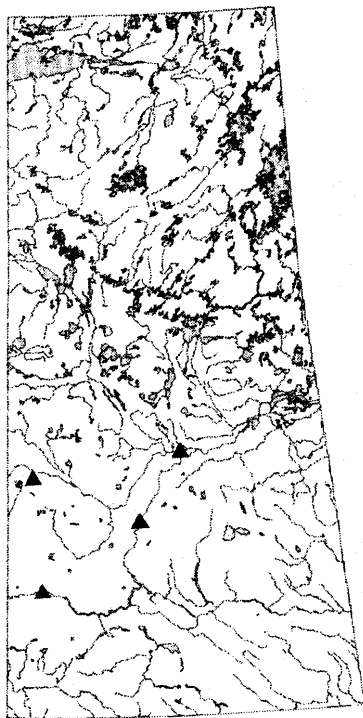


Figure 372. Distribution of *Pseudiron centralis*.



Figure 374. Distribution of *Siphonurus alternatus*.

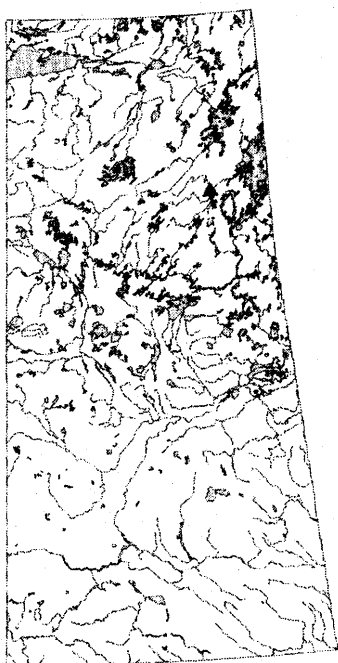


Figure 375. Distribution of *Siphonurus* sp. 1.